

BIM kogemuslugu Viimsi riigigümnaasiumi näitel

VIIMSI GÜMNAASIUM





NOVARC GROUP



MIHKEL KAESVELD

BIM valdkonna juht





NOVARC

25 aastat tegutsenud arhitektuuri- ja inseneribüroo

65 spetsialisti

4 riiki

>1000 objekti

Oleme arhitektid, insenerid, konsultandid

BIM LÄHTEÜLESANNE



tehniline kirjeldus

LISA 2
COBIM 2012

LISA 3
BIM kaaskirja mall

EVS 928 Ehitusinformatsiooni
modelleerimise (BIM) terminid



Modelprojekteerimise
alajuhendid 2012



(BIM) AVALIKU KASUTUS

OHU- ja KASUTUS

Ohu- ja

Kasutus

Ohu- ja

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Kasutus

EESTI STANDARD

EVS 928:2016

EHITUSINFORMATSIOONI MODELLEERIMISE (BIM)
TERMINID

Building Information Modelling (BIM) terminology

VIIMSI RIIGIGÜMNAASIUM

Mudelprojekteerimise rakenduskava



MODELLEERITAVAD ELEMENDID

TALO 2000 hoold	Ehitise osa	Töömudel						
		A	R	V	KU	VR	E	
111 PÄINASEOSAD		X						
Kruvi		X						
112 TOESTUSED JA TUGEVDUSED		X						
1121 Vahel		X						
1122 Toestused		X						
1123 Tugevdused		X						
1124 Muud lood ja tugevdused								



ANDMESISU NÕUDED

Sisukord

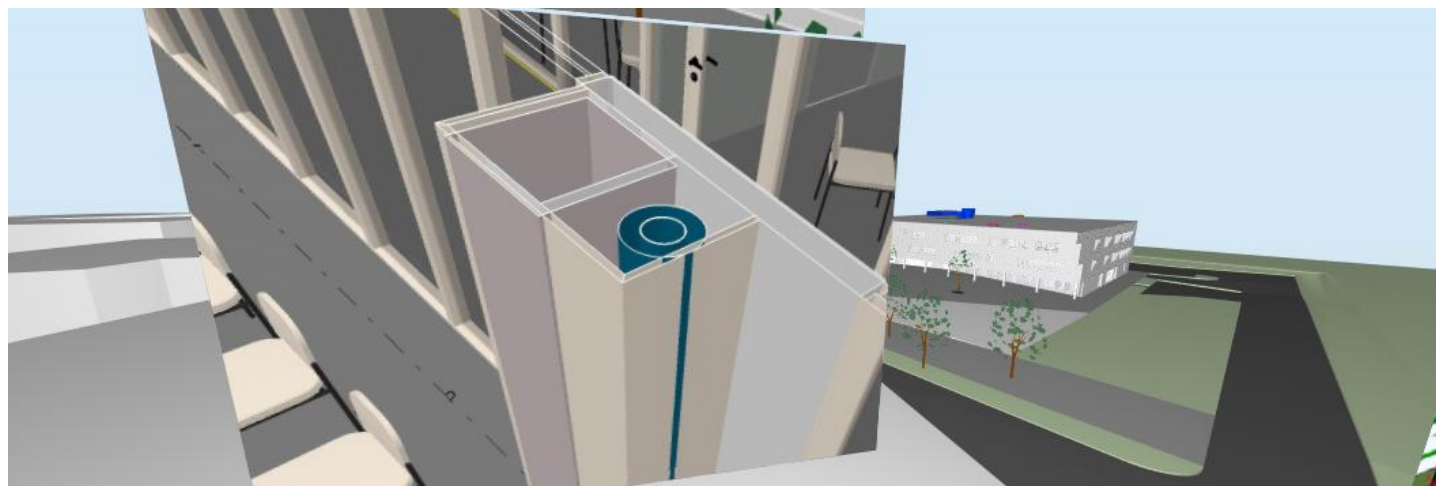
Modelleeritavad osamudelid	2
1. Arhitektuuri osamudel	2
1.1. Üldised mõõtmised	2
1.2. Modelleerimis- ja andmesisu nõuded	2
1.2.1. Koordinaadid	2
1.2.2. Ehitise jagamine komponentideks	3
1.2.3. Ruumid	3
1.2.4. Välisseinad, vundamendiseinad, fassaadid	4

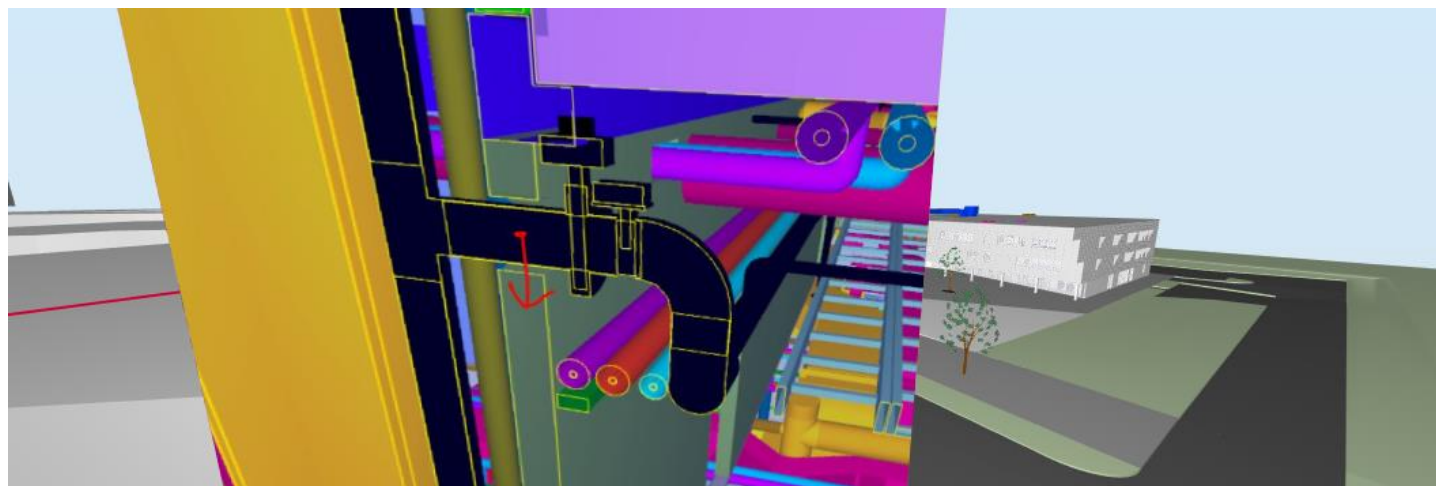
MUDELPROJEKTEERIMISE JUHTIMINE

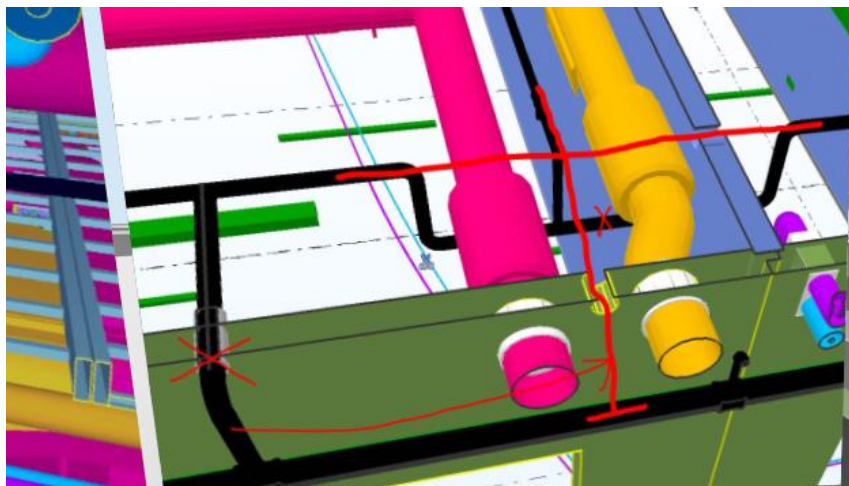
47,207 mm
1 - 100,000 mm
2 - 200 mm

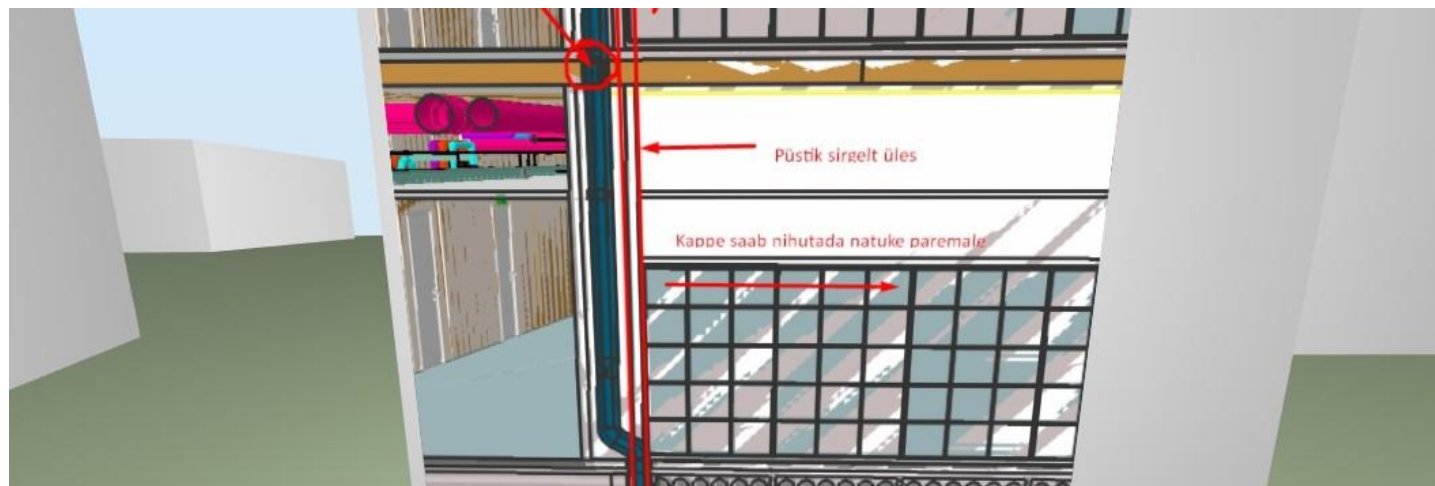


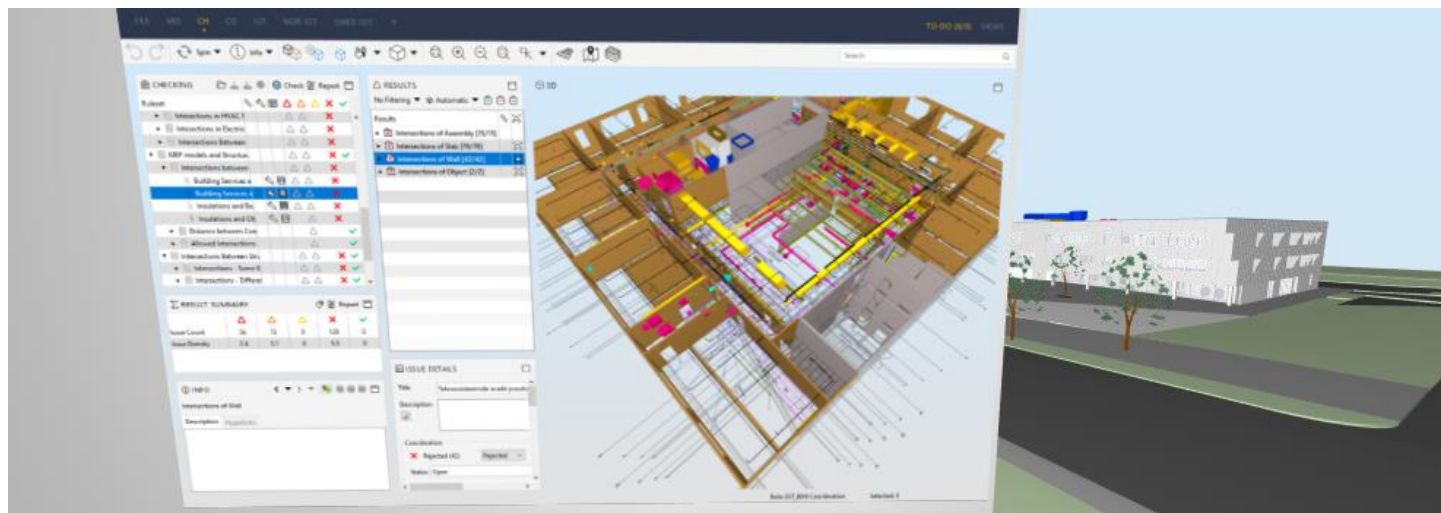












1318_TP_MCR-180117_Protokoll-AR

Muisti:	1318_TP_Koordinaattori Versio: 5.8
Koordinaattori:	Mika Kumpulainen
Organisaatio:	Metsä Group AS
Käyttö:	January 17, 2018

Osaumakohdat:

F2_TP_A8	Date: 2018-01-09 15:34:52 Application: ArchiCAD 24 RC RC243
F2_TP_A8	Date: 2017-01-29 17:07:38 Application: ArchiCAD 24 RC RC243
F2_TP_A8	Date: 2018-01-16 17:08:25 Application: Autodesk Revit 2018 (160) RC RC243
F2_TP_A8_käyttö	Date: 2018-01-10 18:55:29 Application: Autodesk Revit 2017 (160) RC RC243
F2_TP_A8	Date: 2018-01-14 14:45:22 Application: MagicCAD VP 2018 UR 1 RC RC243
F2_TP_A8	Date: 2018-01-16 15:15:58 Application: MagicCAD VP 2018 UR 1 RC RC243
F2_TP_A8	Date: 2018-01-09 15:31:24 Application: ArchiCAD 24 RC RC243
F2_TP_A8	Date: 2018-01-17 18:00:30 Application: MagicCAD VP 2018 UR 1 RC RC243
F2_TP_A8	Date: 2018-01-17 10:09:28 Application: MagicCAD VP 2018 UR 1 RC RC243
F2_TP_A8	Date: 2017-11-24 13:42:22 Application: CAD2 Electric RC RC243
F2_TP_A8	Date: 2018-01-11 19:20:17 Application: CAD2 Electric RC RC243
F2_TP_A8_giulijana	Date: 2018-01-11 18:35:05 Application: CAD2 Electric RC RC243
F2_TP_A8_giulijana	Date: 2018-01-11 17:43:24 Application: CAD2 Electric RC RC243

Käyttökohteiden, projektin, lisäosa				
Käyttökohteiden	Projektin	Lisäosa	Osaumakohdat	Projektin
1	Arkkitehti	Arkkitehti	Arkkitehti	Arkkitehti
1	Arkkitehti	Arkkitehti	Arkkitehti	Arkkitehti

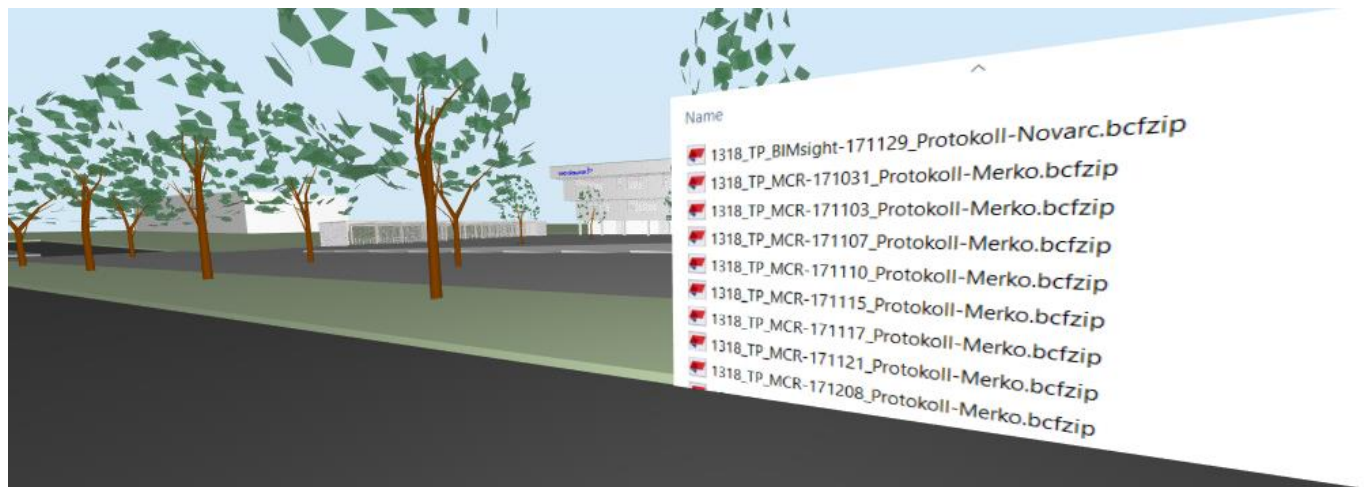
1318_TP_MCR-171208_Protokoll-Merko

Muisti:	1318_TP_Koordinaattori versio: 5.7
Koordinaattori:	Mika Kumpulainen
Organisaatio:	Metsä Group AS
Käyttö:	December 8, 2017

Osaumakohdat:

F2_TP_A8	Date: 2018-01-09 15:34:52 Application: ArchiCAD 24 RC RC243
F2_TP_A8	Date: 2017-01-29 17:07:38 Application: ArchiCAD 24 RC RC243
F2_TP_A8	Date: 2018-01-16 17:08:25 Application: Autodesk Revit 2018 (160) RC RC243
F2_TP_A8_käyttö	Date: 2018-01-10 18:55:29 Application: Autodesk Revit 2017 (160) RC RC243
F2_TP_A8	Date: 2018-01-14 14:45:22 Application: MagicCAD VP 2018 UR 1 RC RC243
F2_TP_A8	Date: 2018-01-16 15:15:58 Application: MagicCAD VP 2018 UR 1 RC RC243
F2_TP_A8	Date: 2018-01-09 15:31:24 Application: ArchiCAD 24 RC RC243
F2_TP_A8	Date: 2018-01-17 18:00:30 Application: MagicCAD VP 2018 UR 1 RC RC243
F2_TP_A8	Date: 2018-01-17 10:09:28 Application: MagicCAD VP 2018 UR 1 RC RC243
F2_TP_A8	Date: 2017-11-24 13:42:22 Application: CAD2 Electric RC RC243
F2_TP_A8	Date: 2018-01-11 19:20:17 Application: CAD2 Electric RC RC243
F2_TP_A8_giulijana	Date: 2018-01-11 18:35:05 Application: CAD2 Electric RC RC243
F2_TP_A8_giulijana	Date: 2018-01-11 17:43:24 Application: CAD2 Electric RC RC243

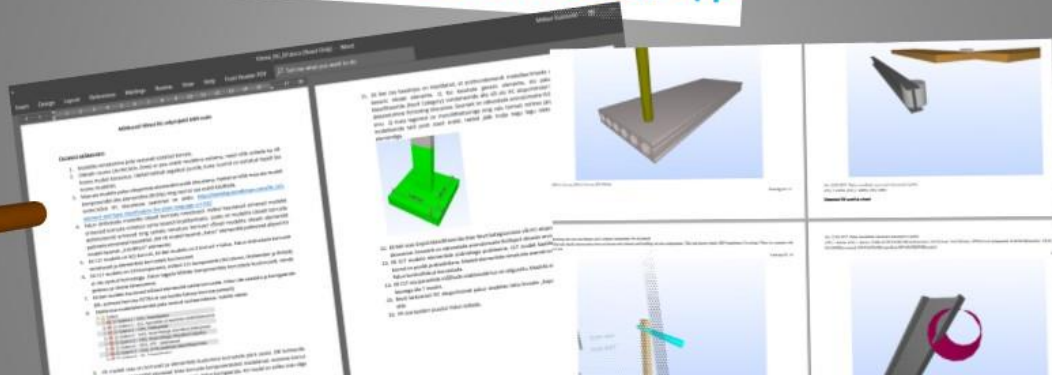
Käyttökohteiden, projektin, lisäosa				
Käyttökohteiden	Projektin	Lisäosa	Osaumakohdat	Projektin
1	Arkkitehti	Arkkitehti	Arkkitehti	Arkkitehti
1	Arkkitehti	Arkkitehti	Arkkitehti	Arkkitehti



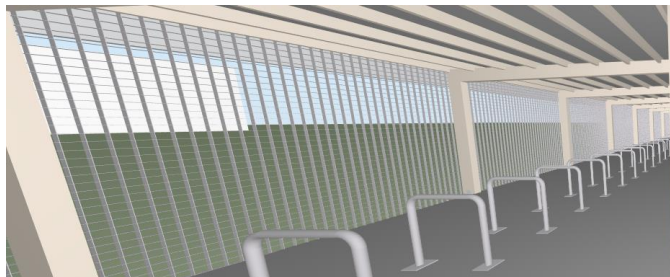


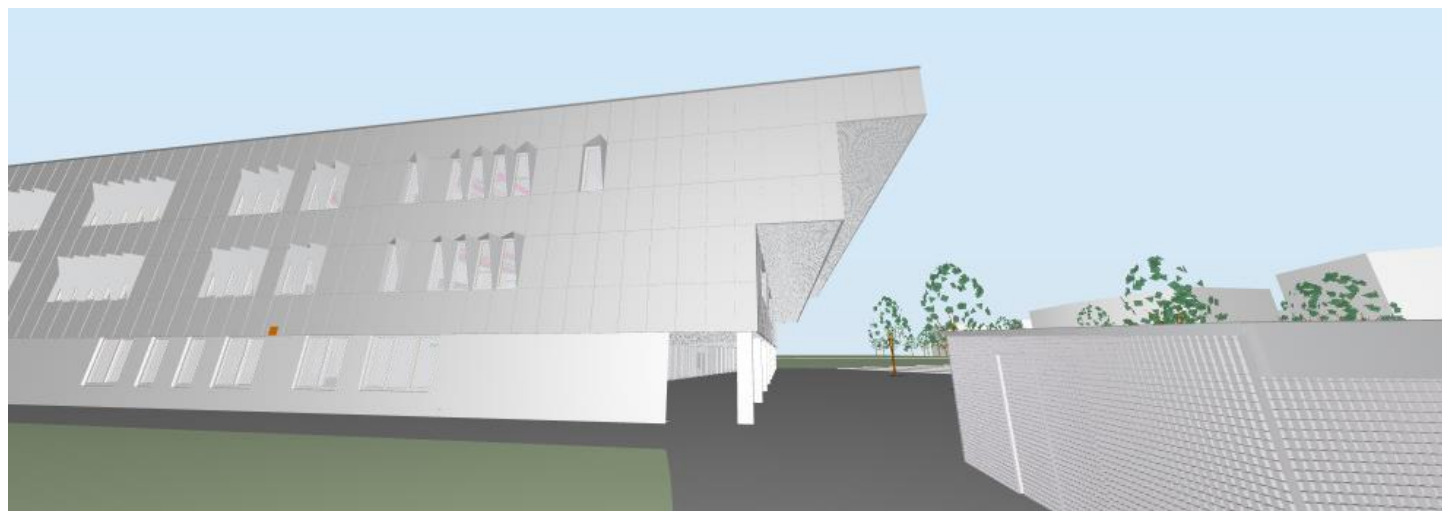


KOOSTÖÖ TELLIJAGA EP-TP





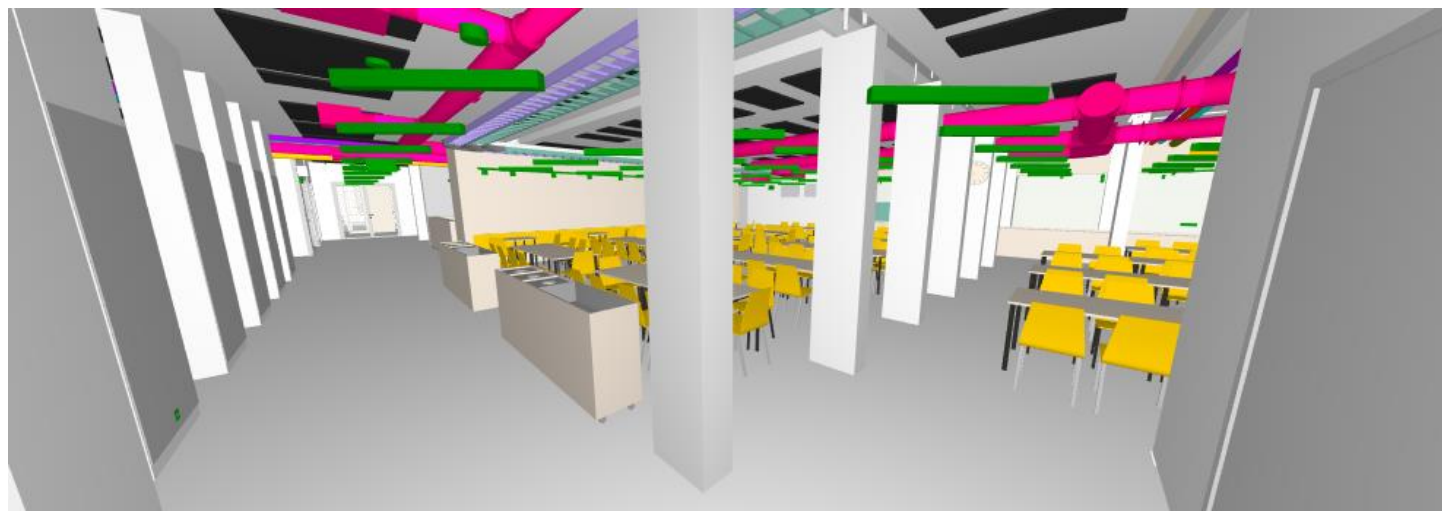












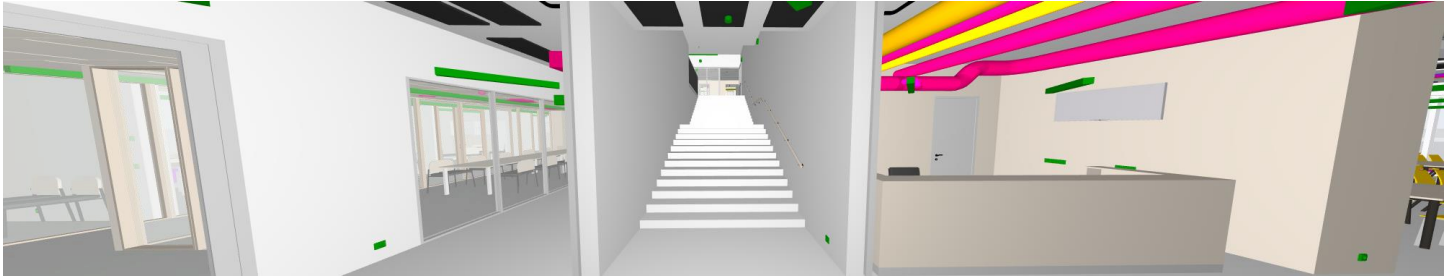






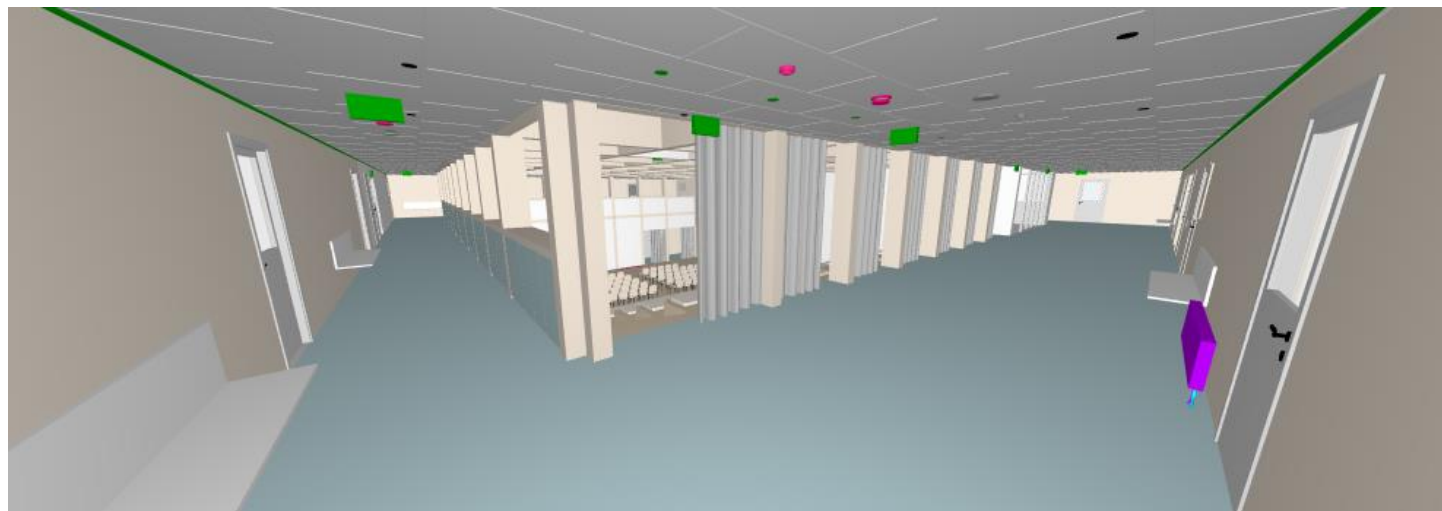


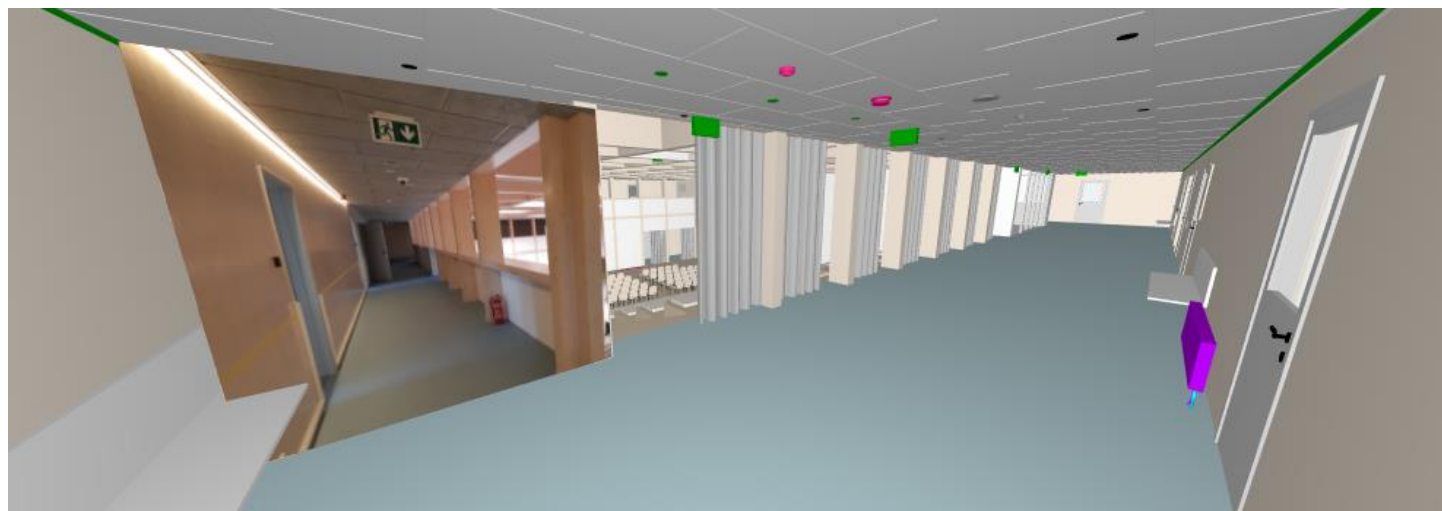










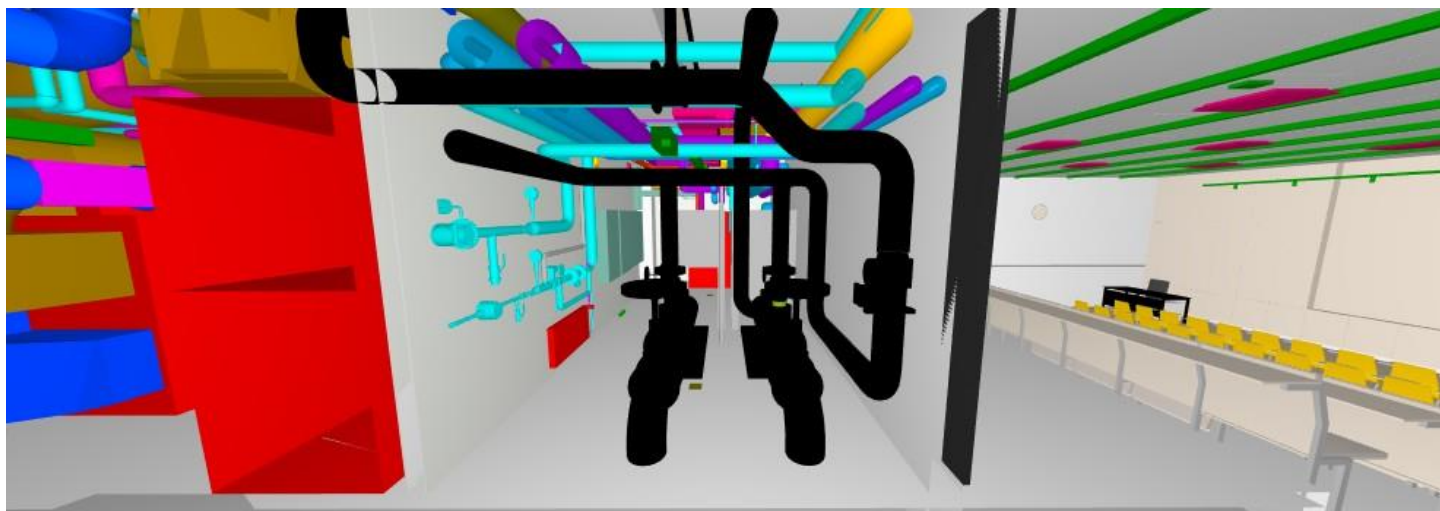




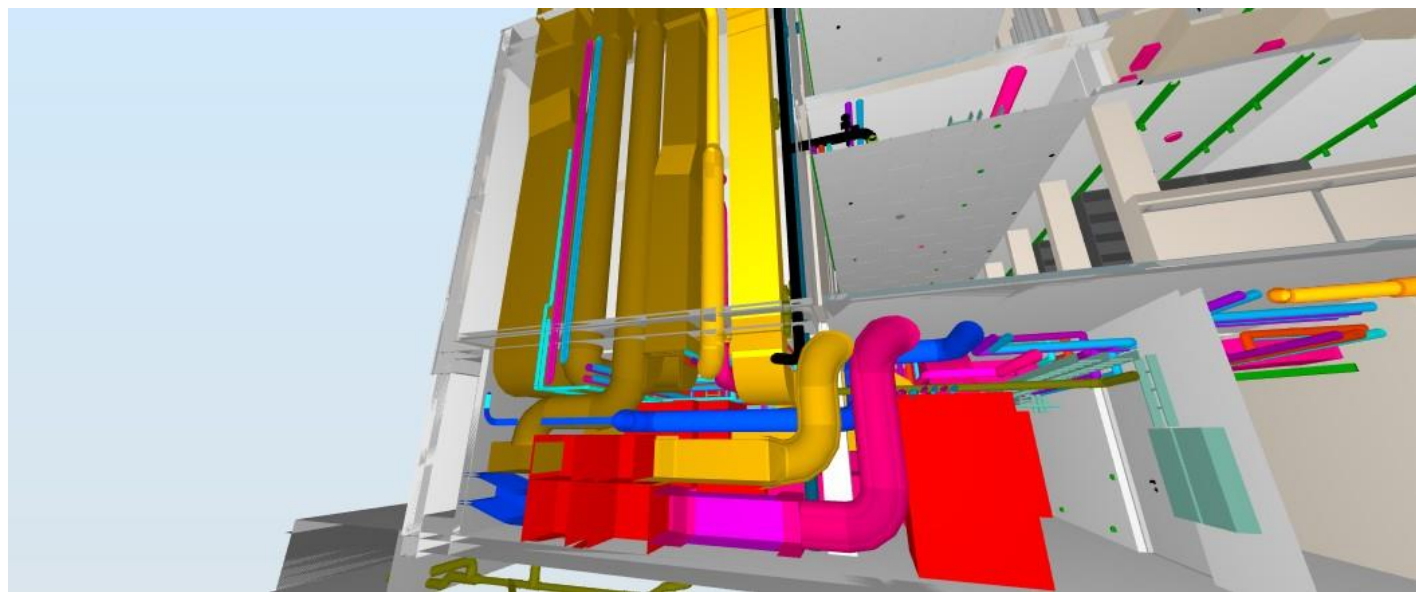


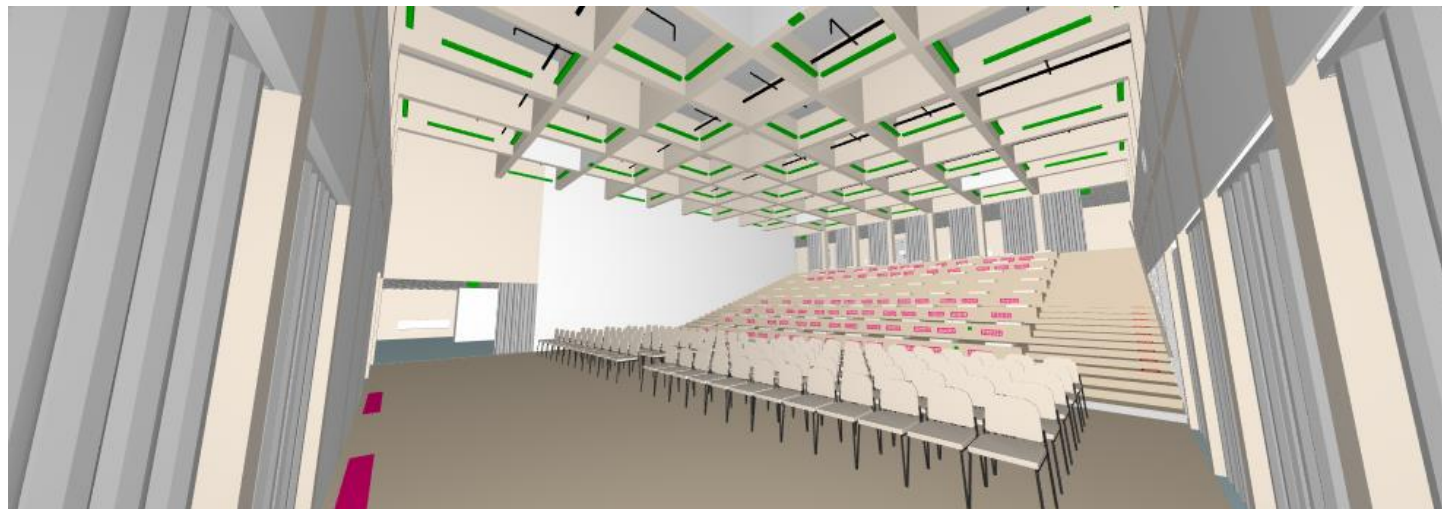




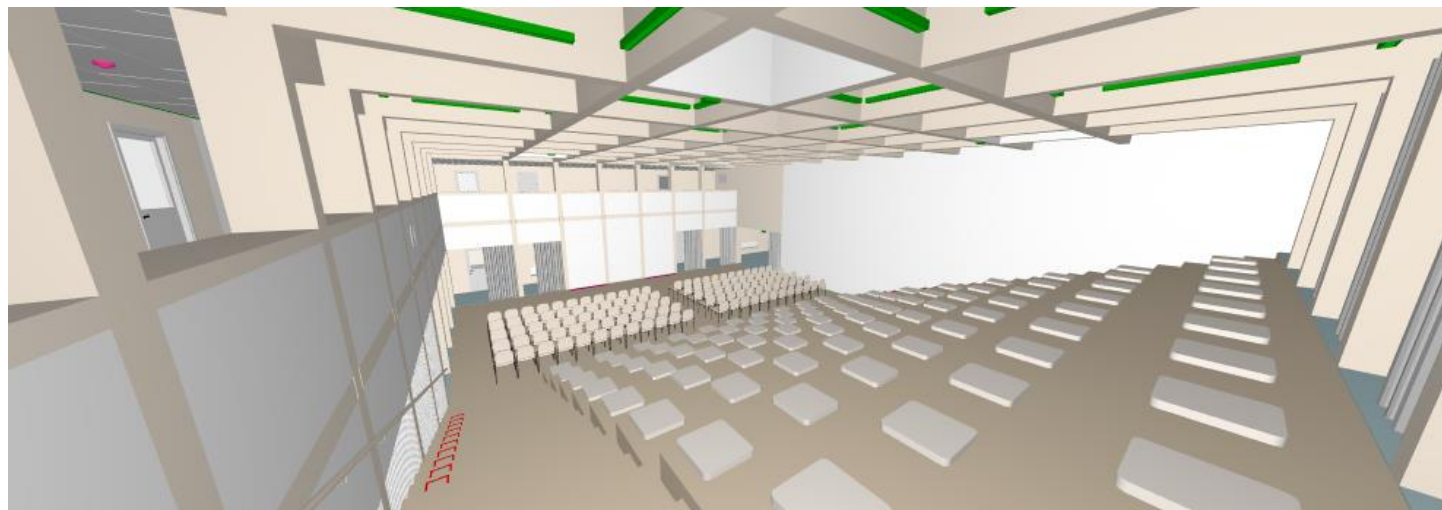


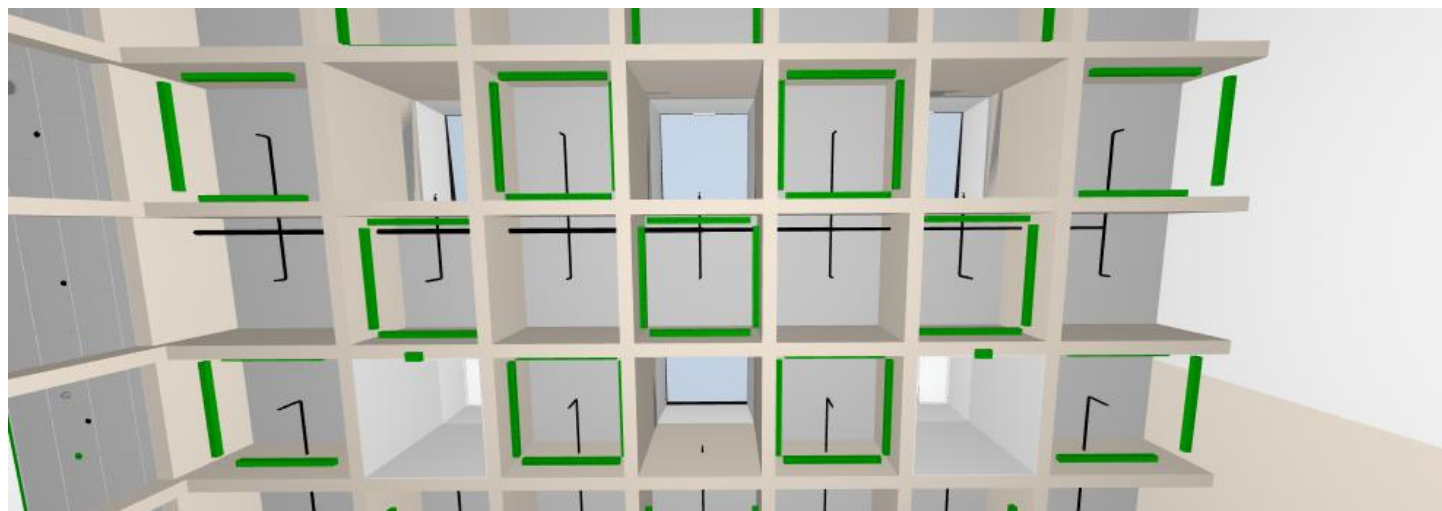


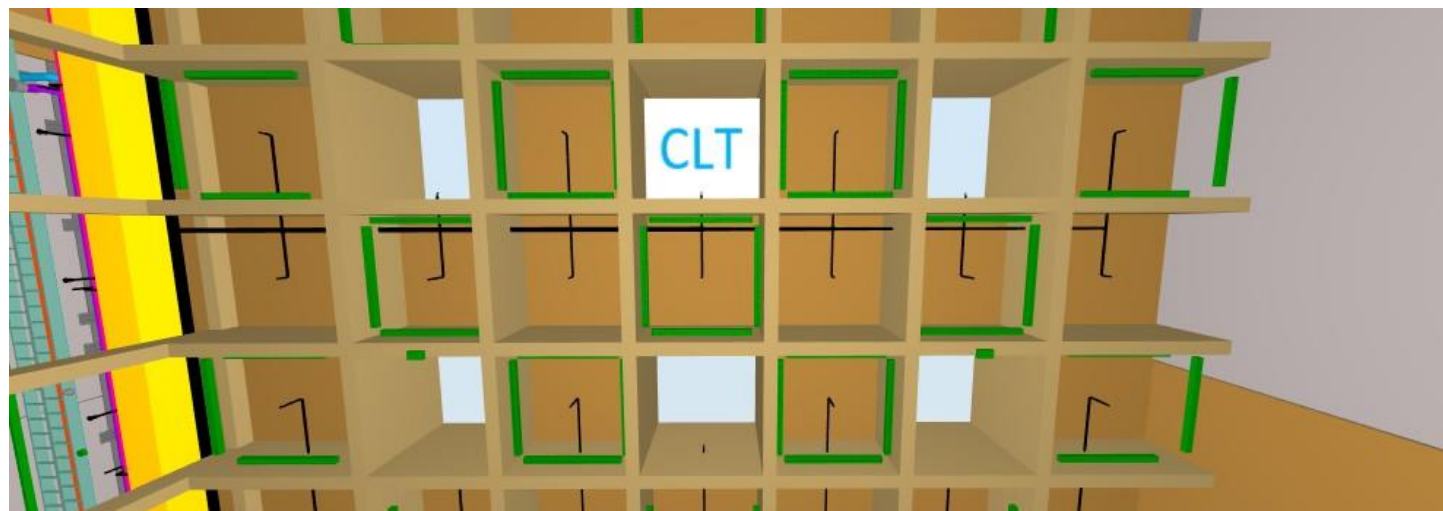


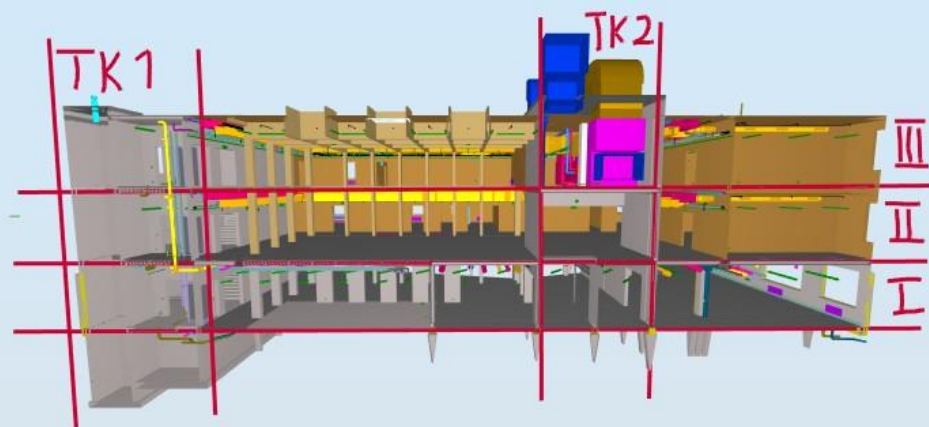


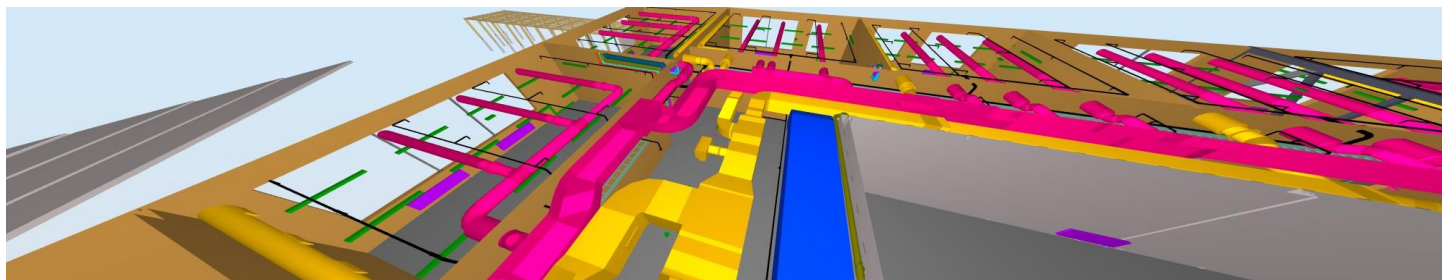


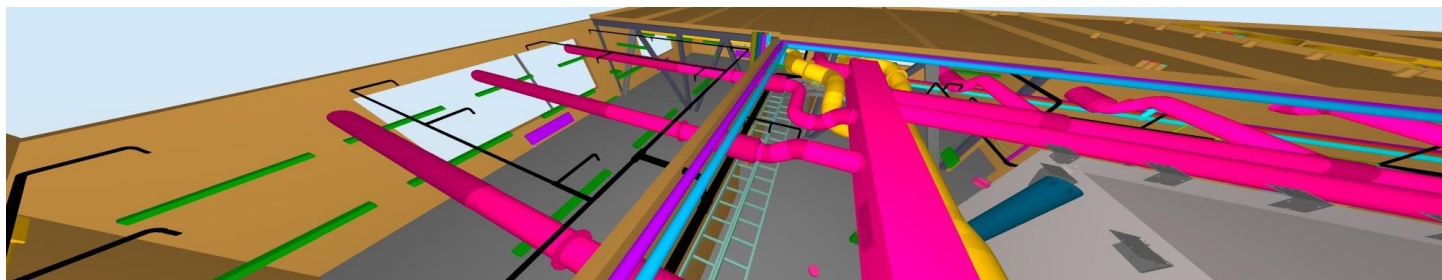


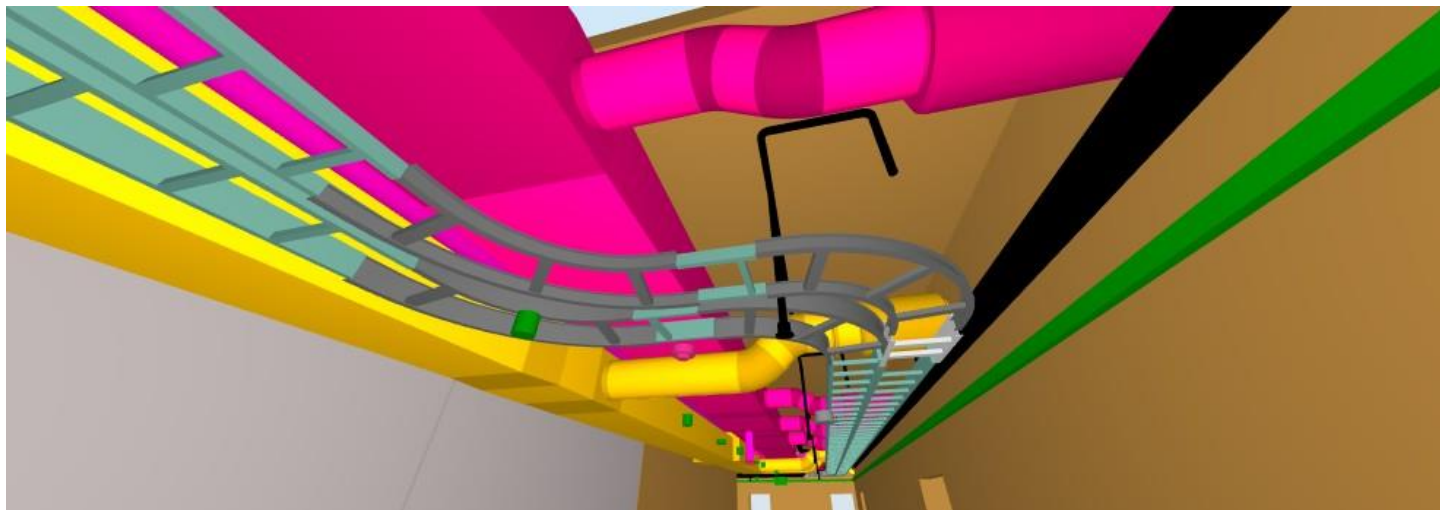




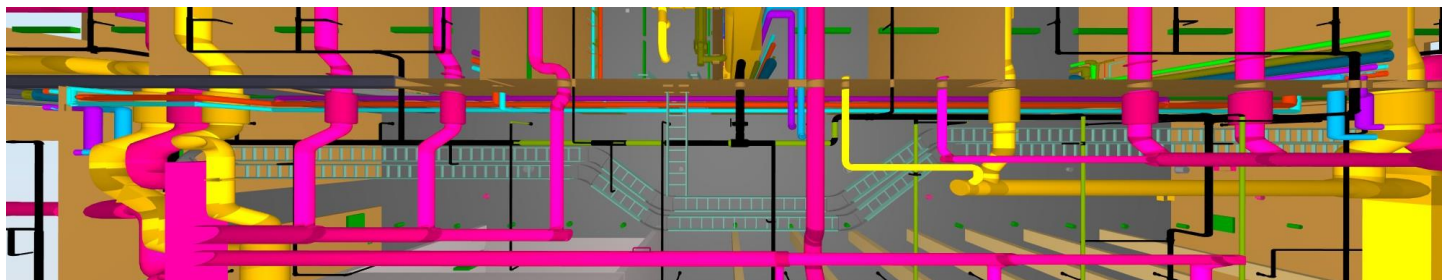


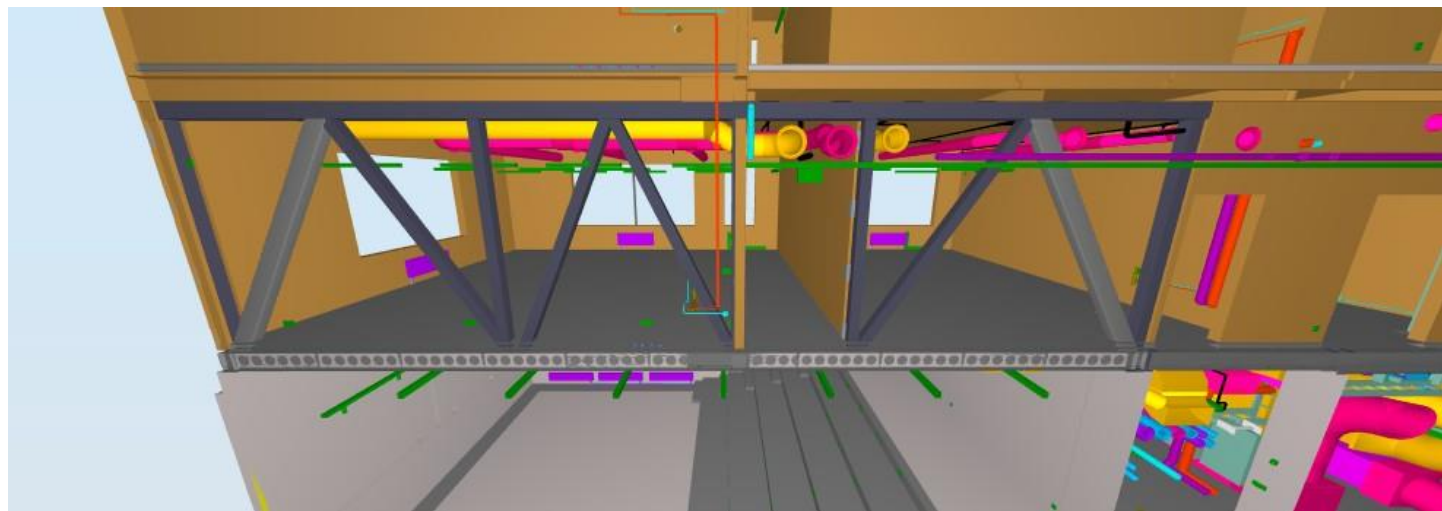


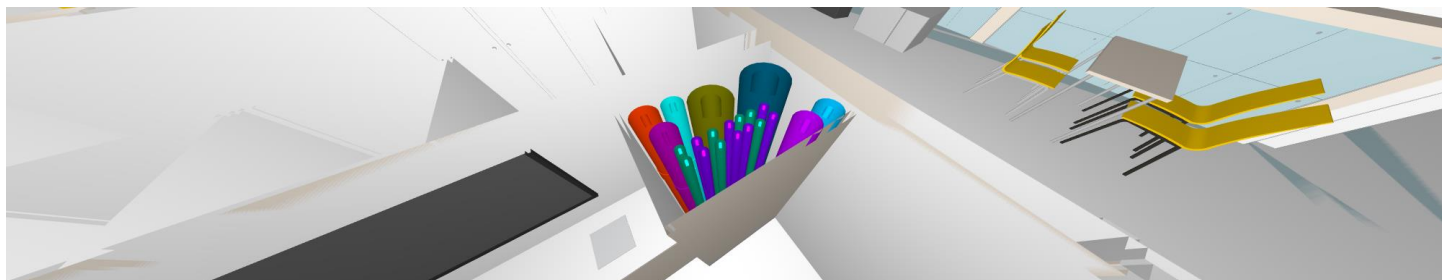


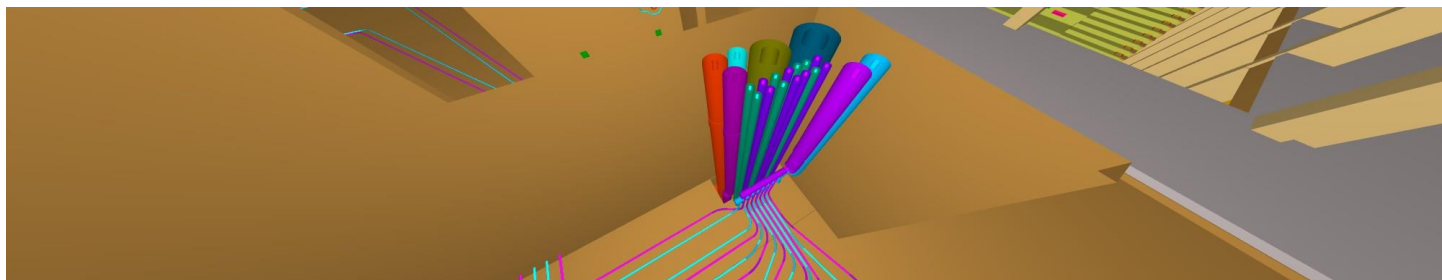




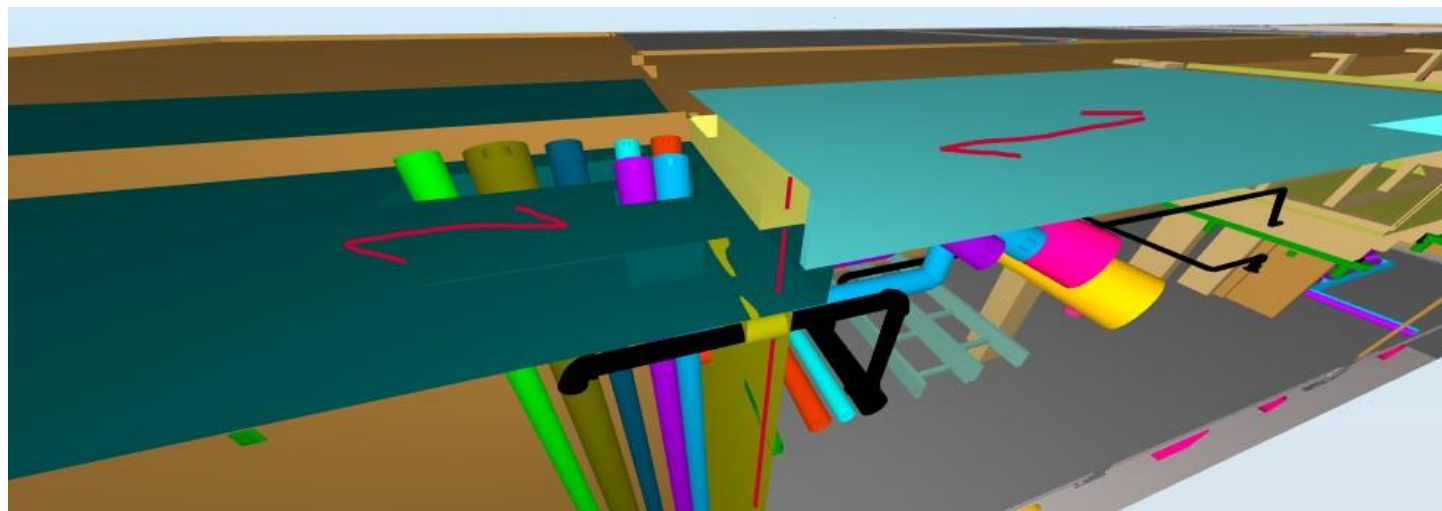


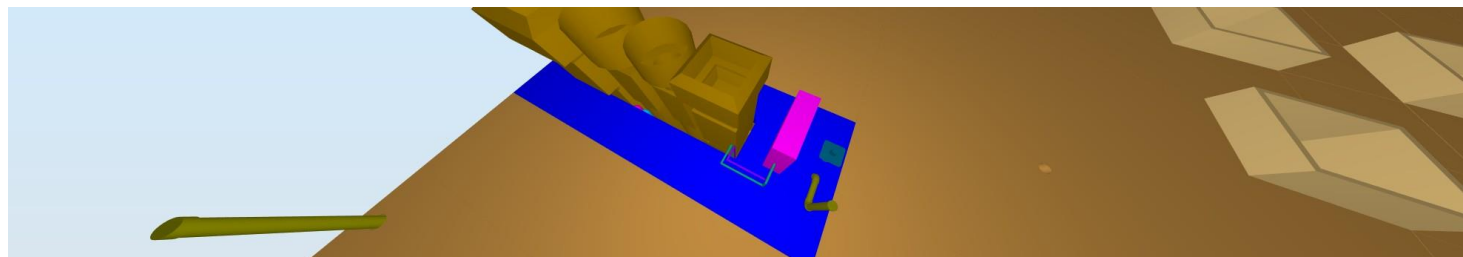


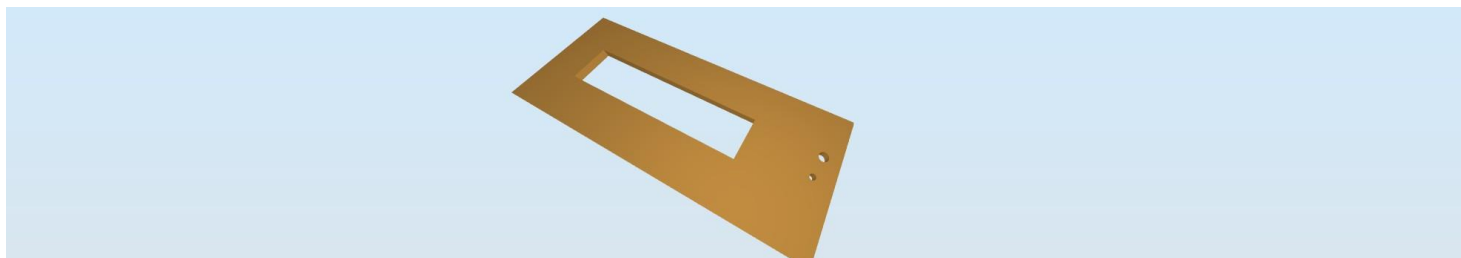






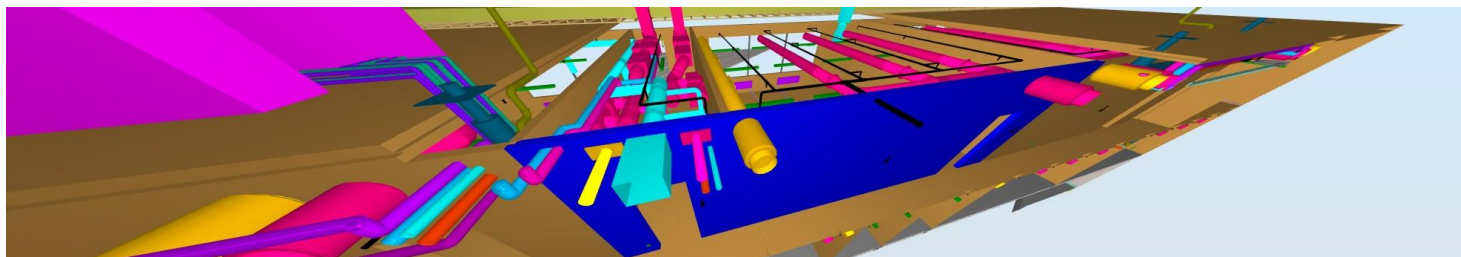


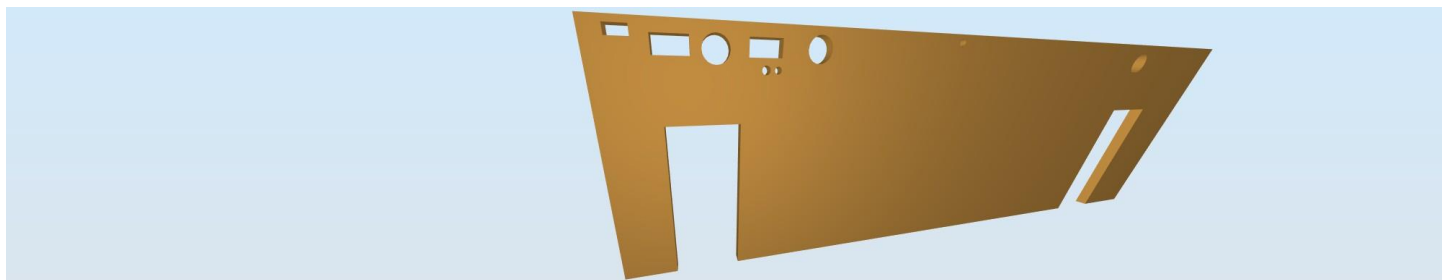


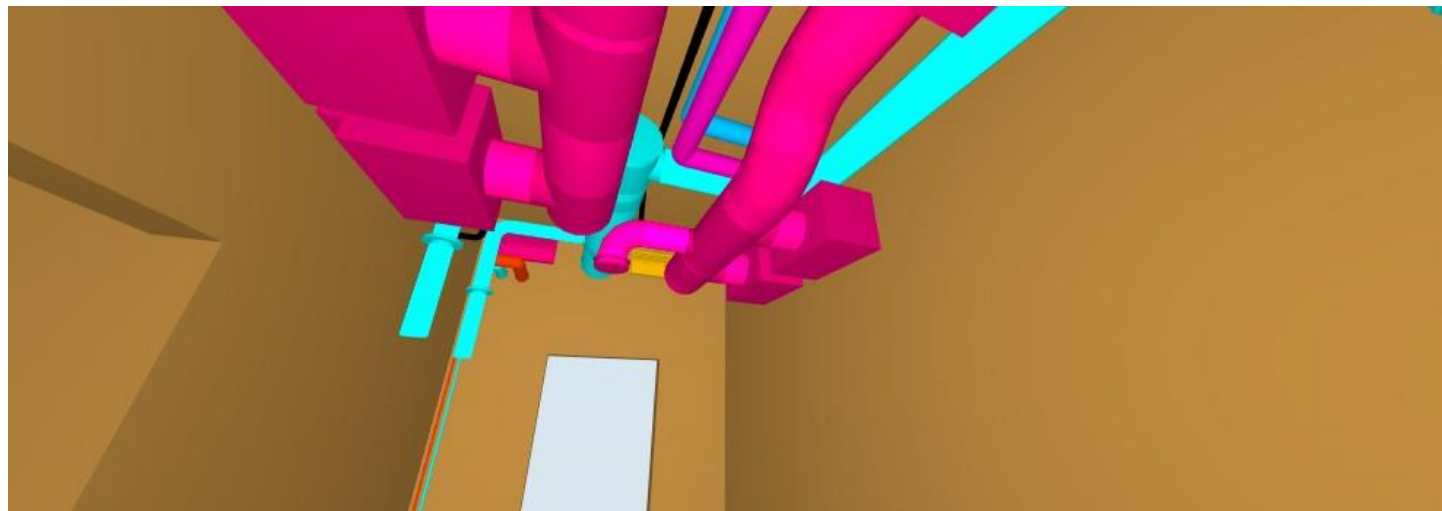




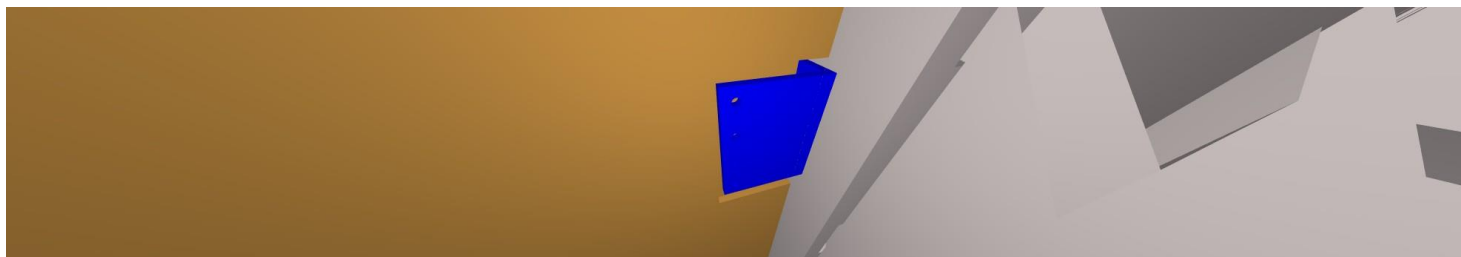


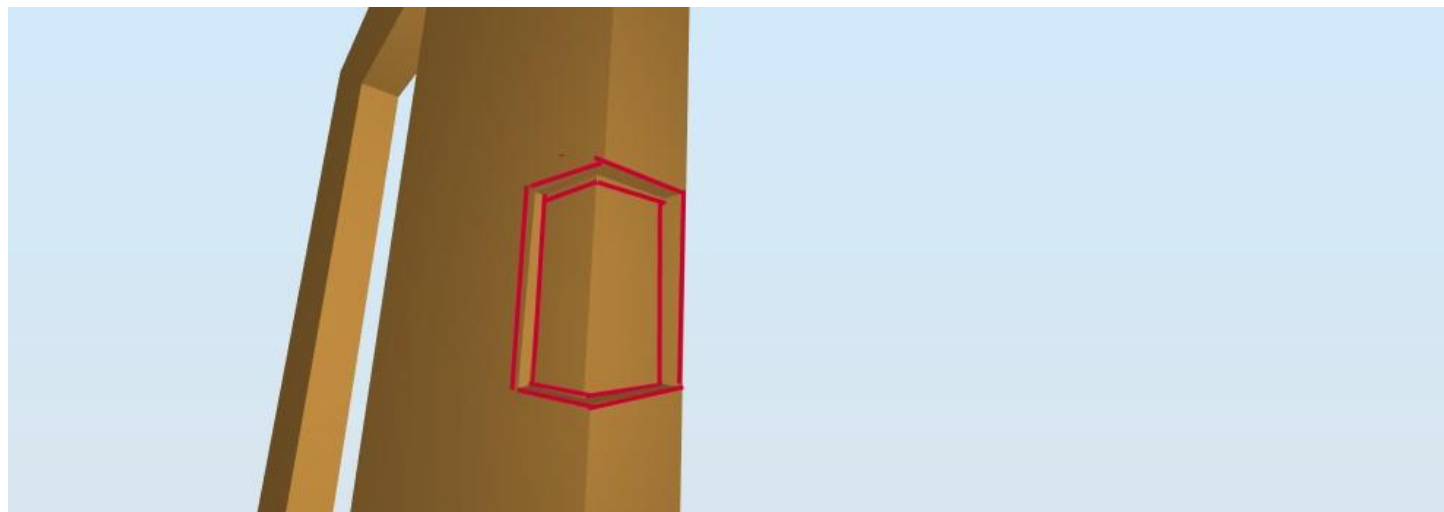




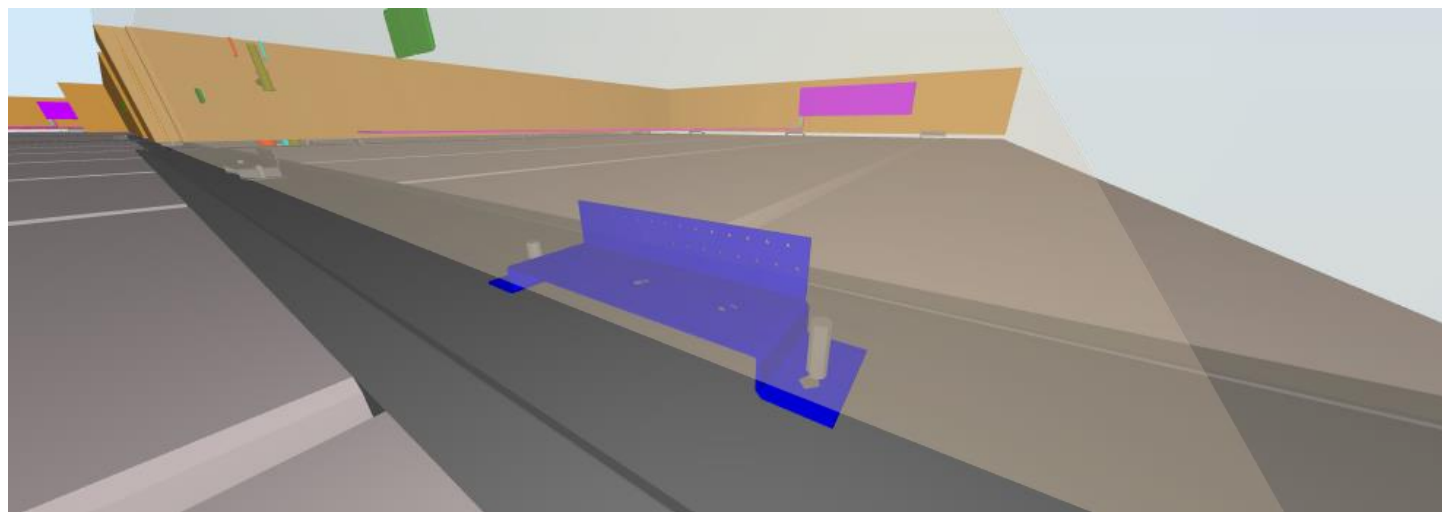


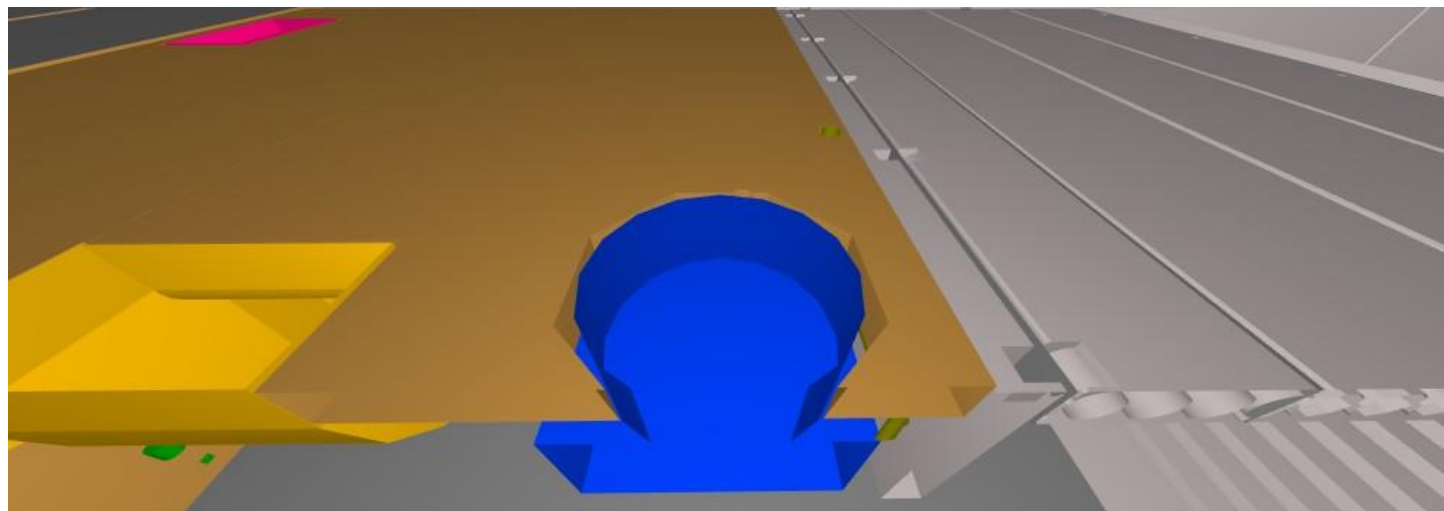


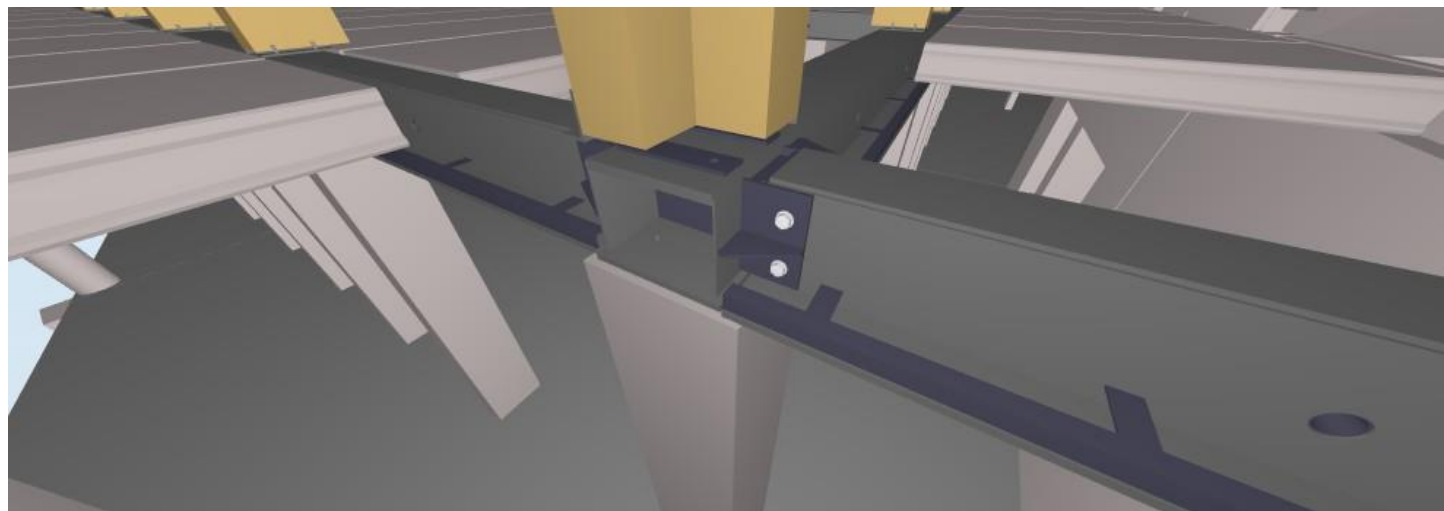


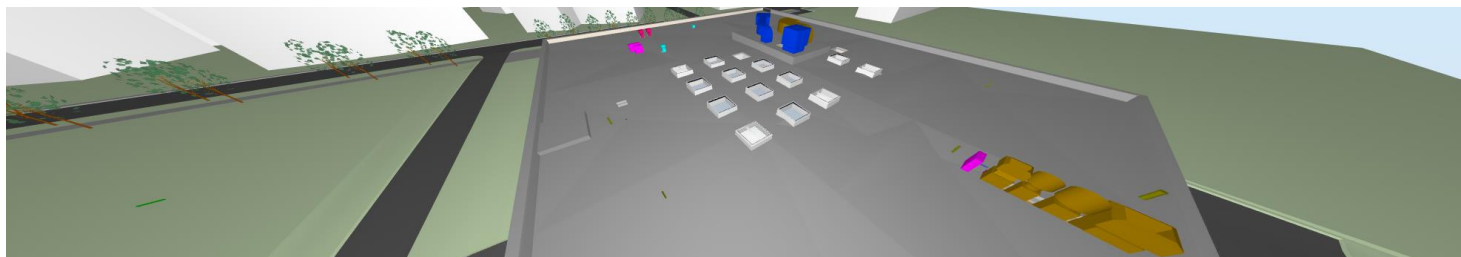


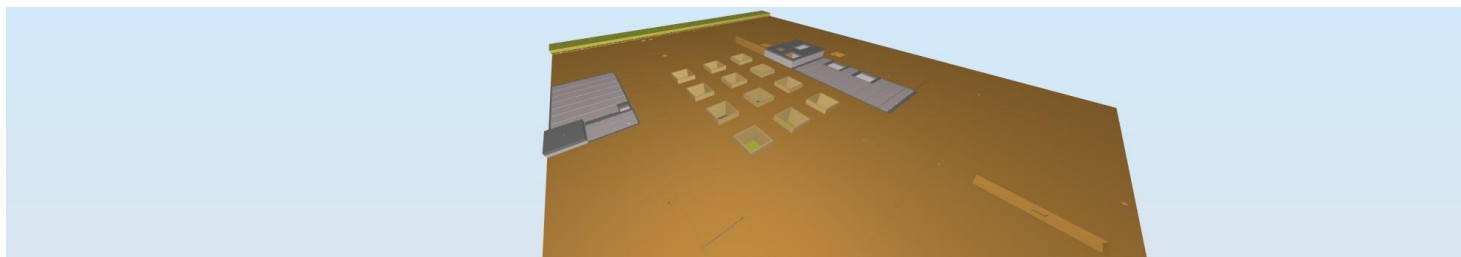


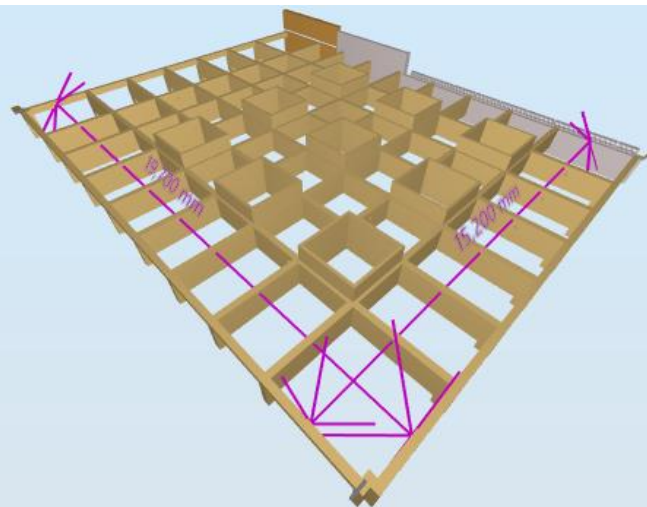


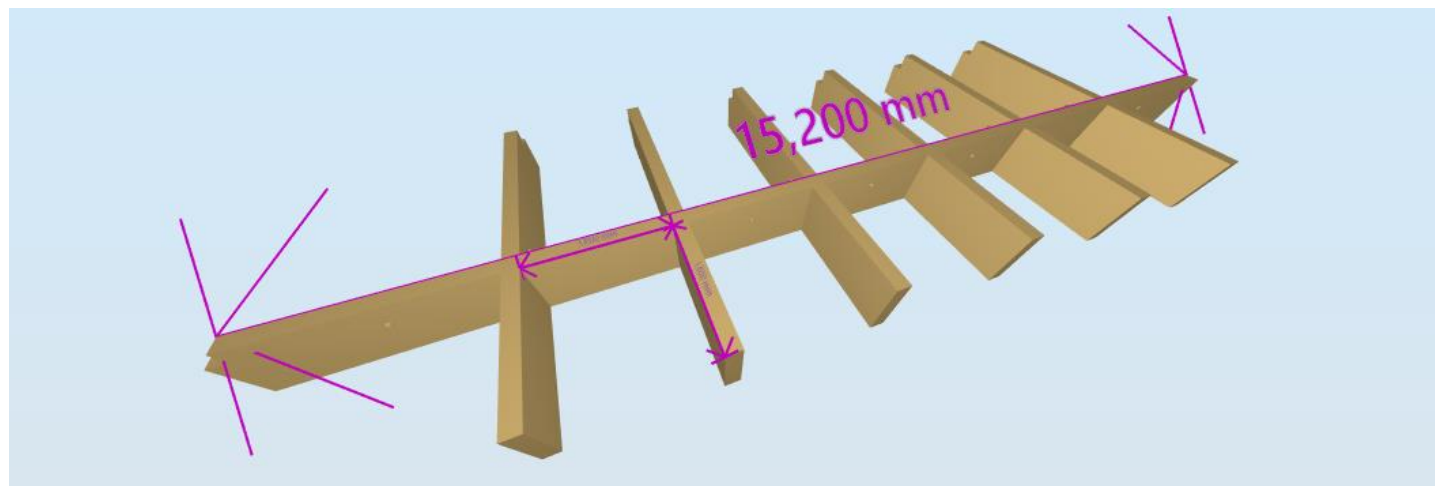


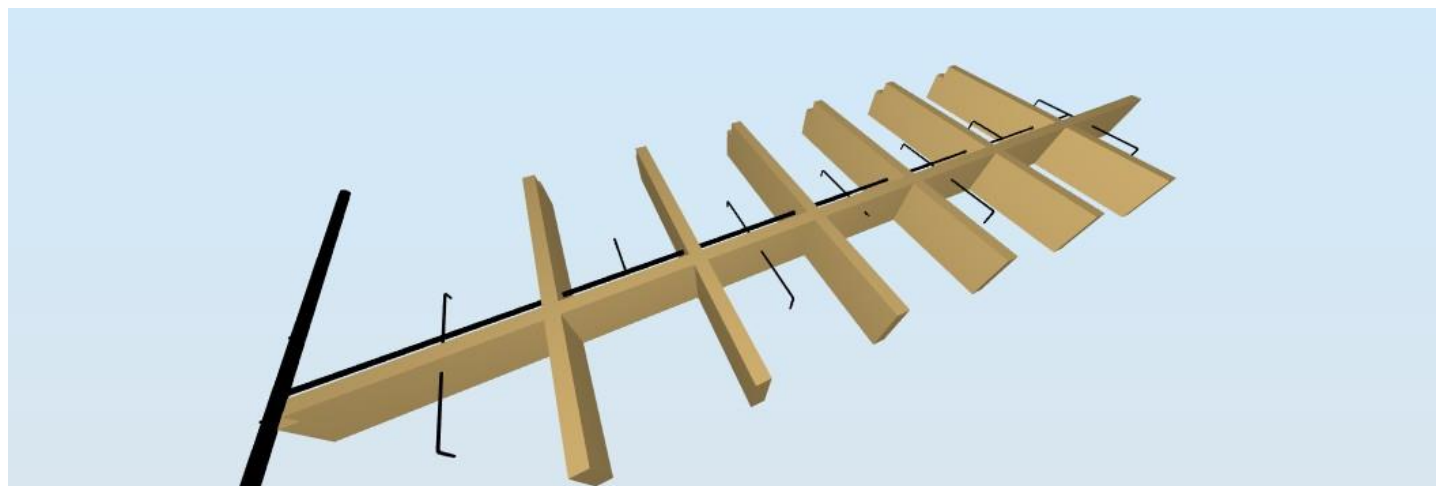


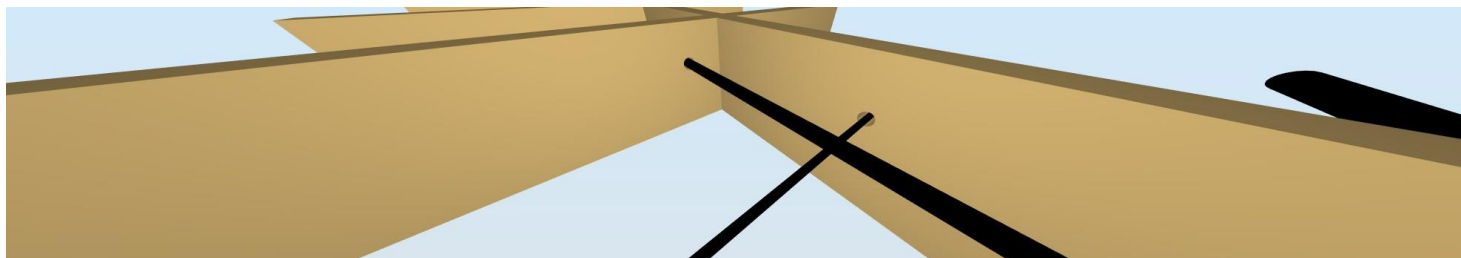


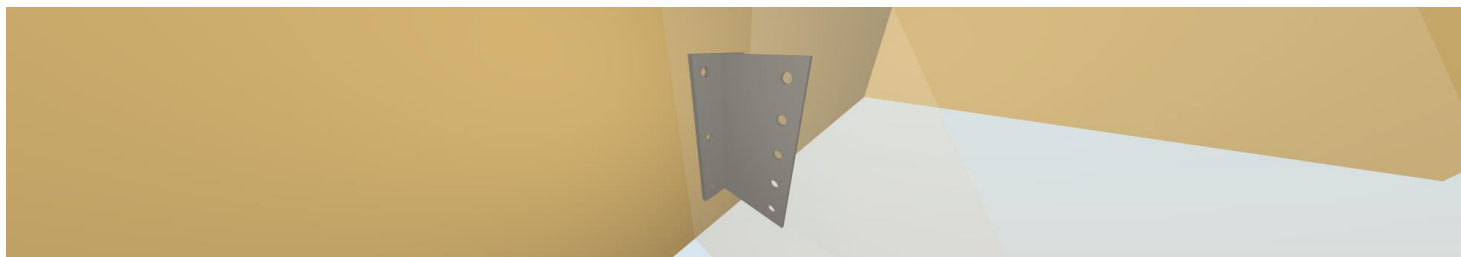




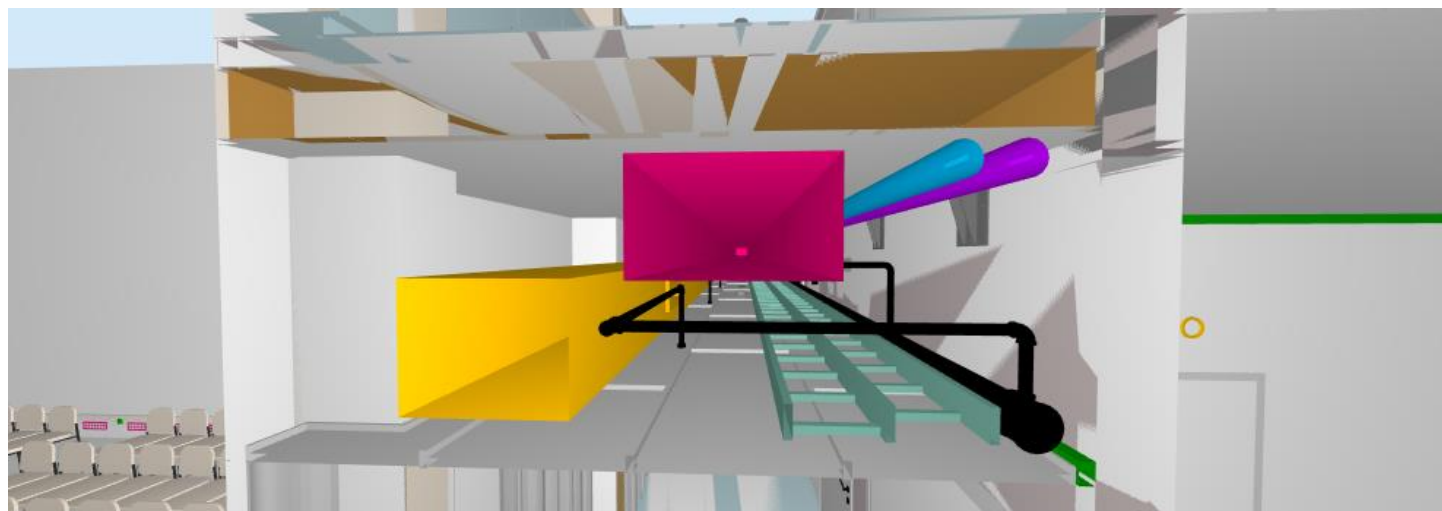


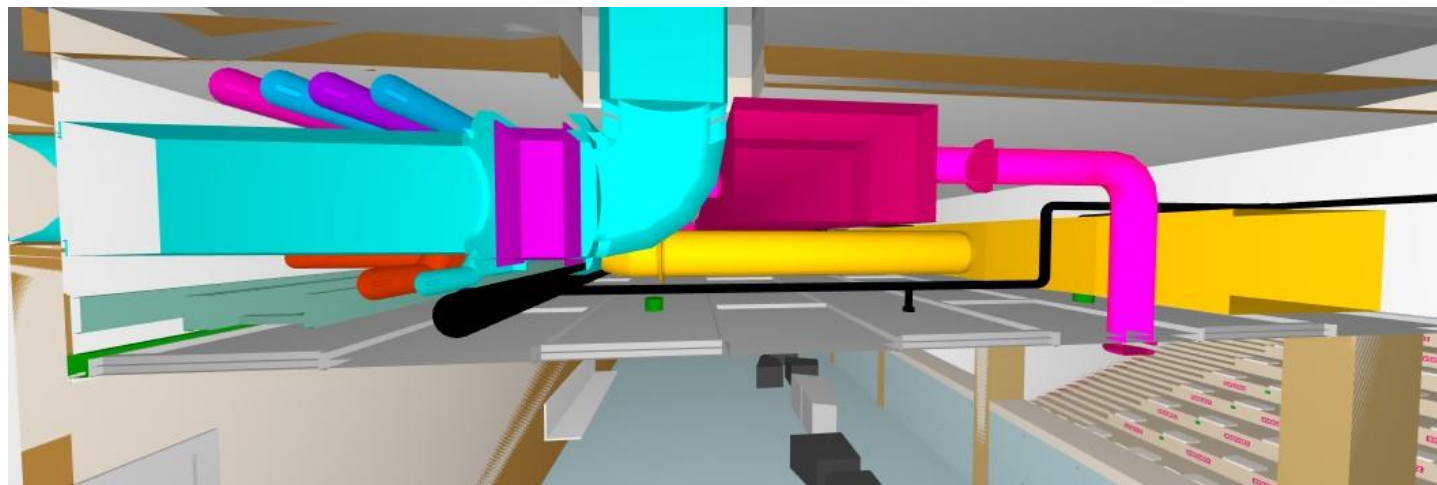


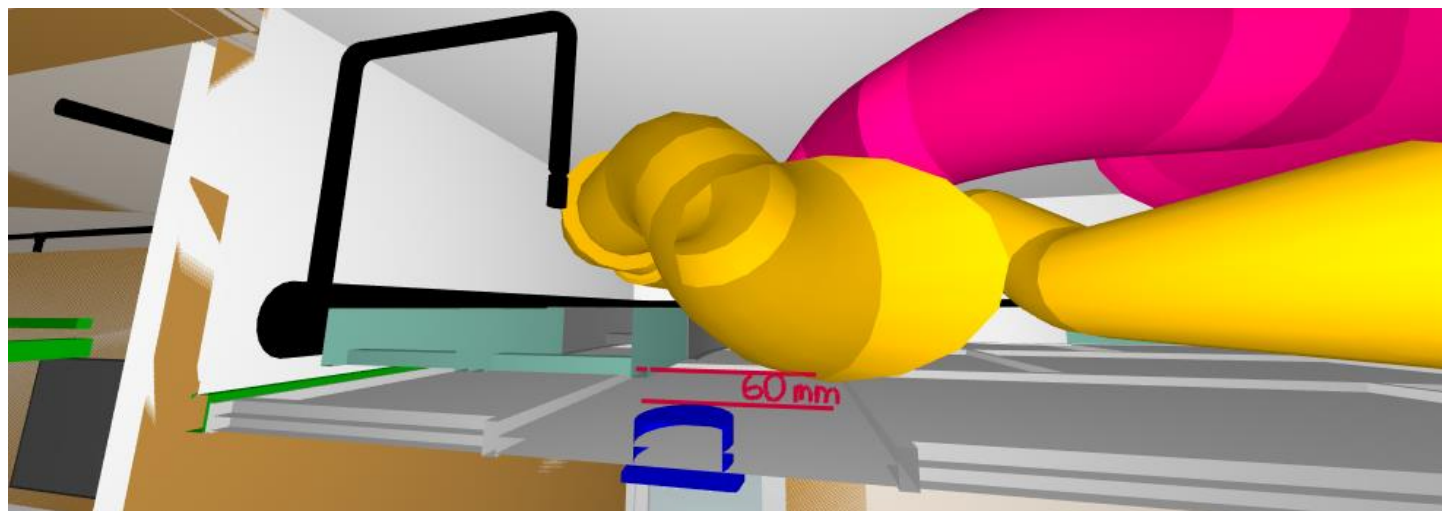




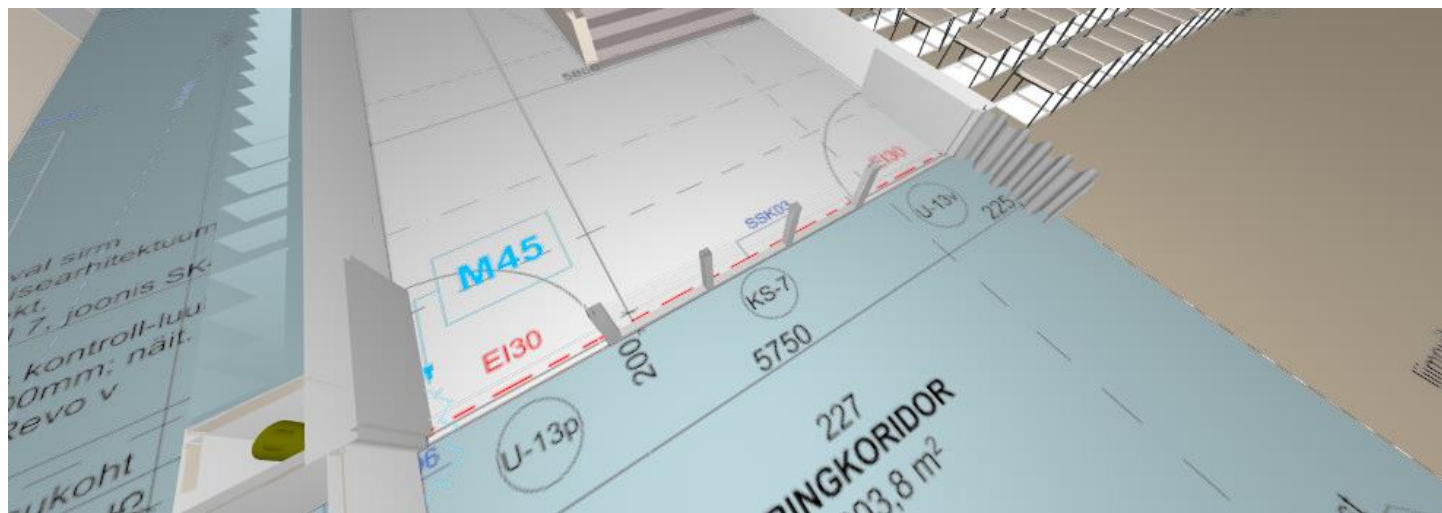


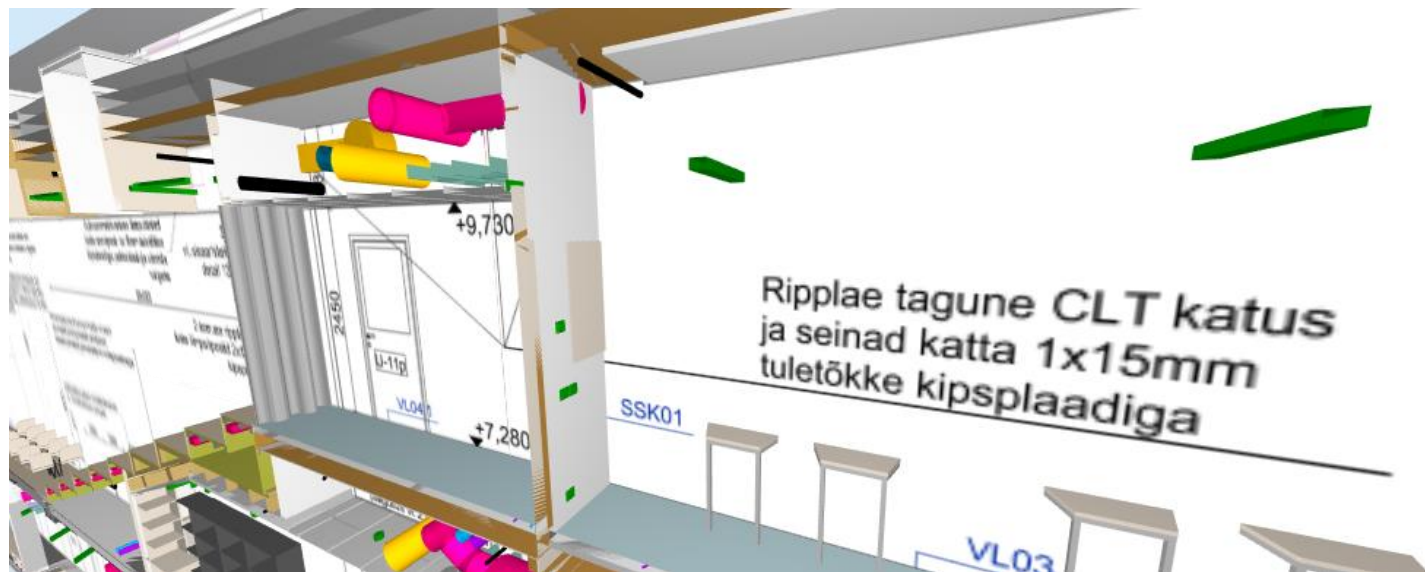


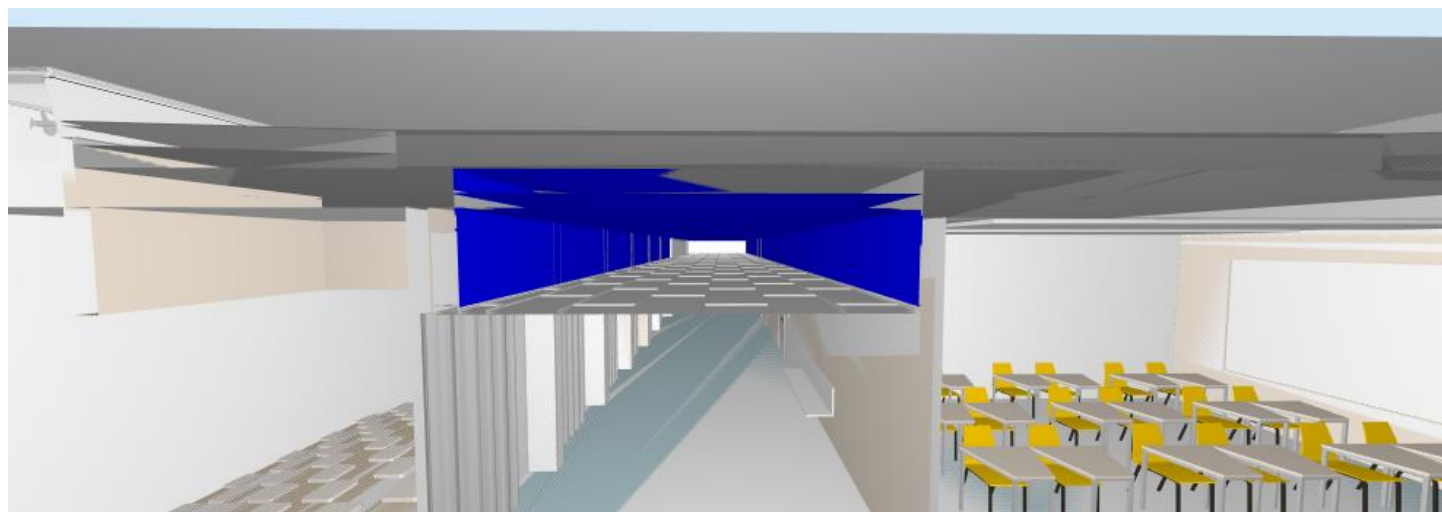


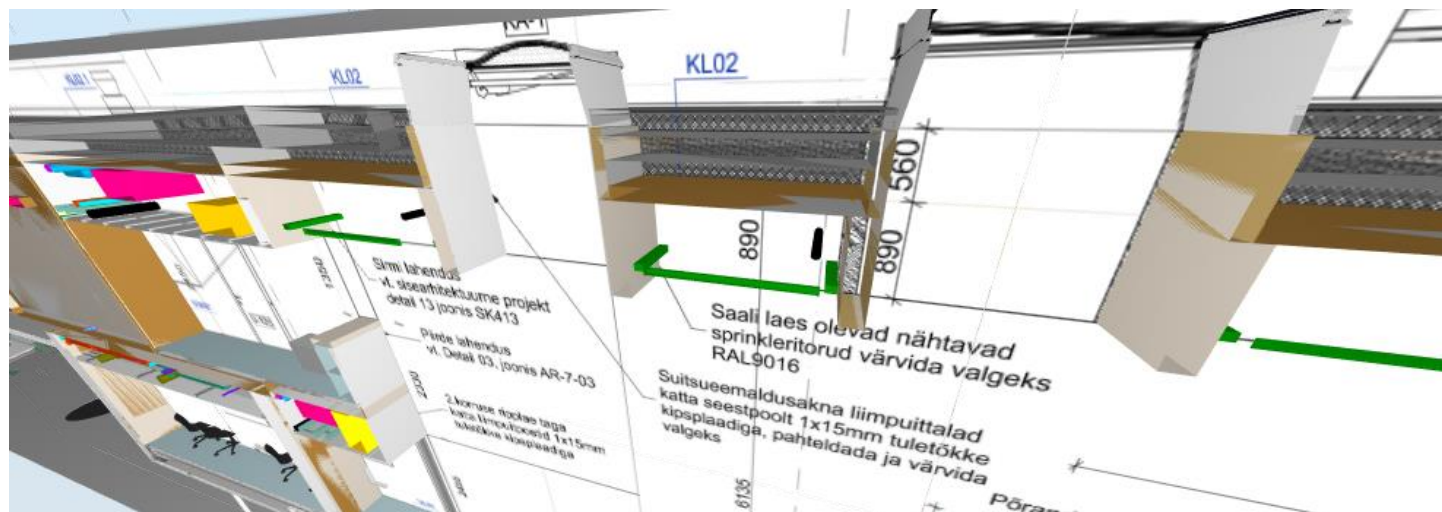


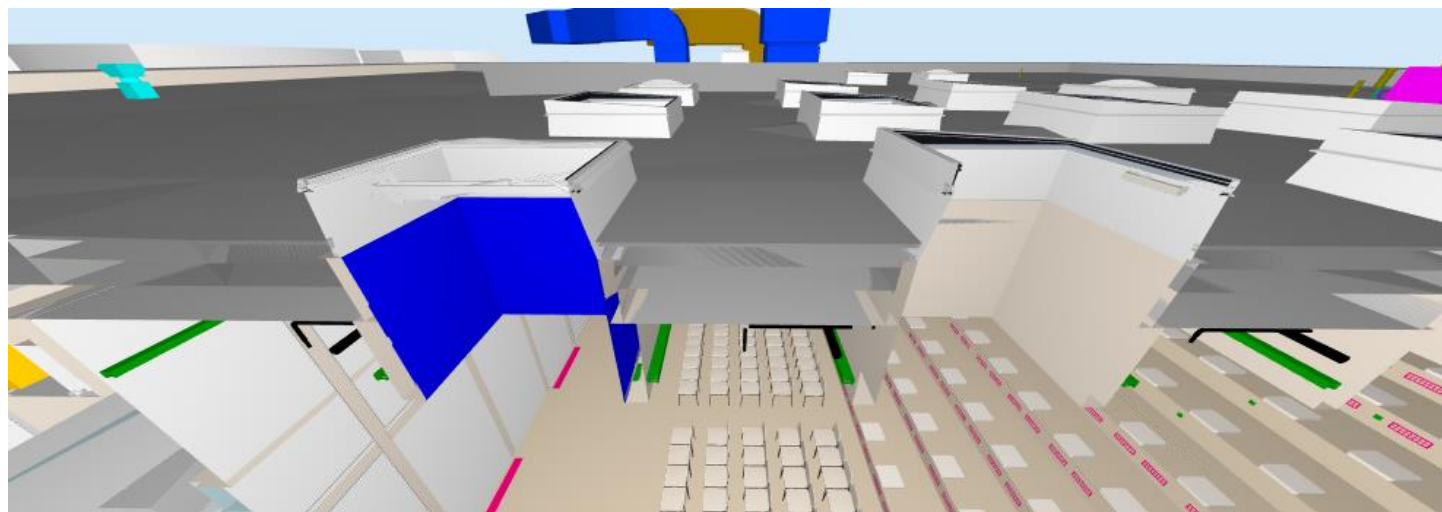


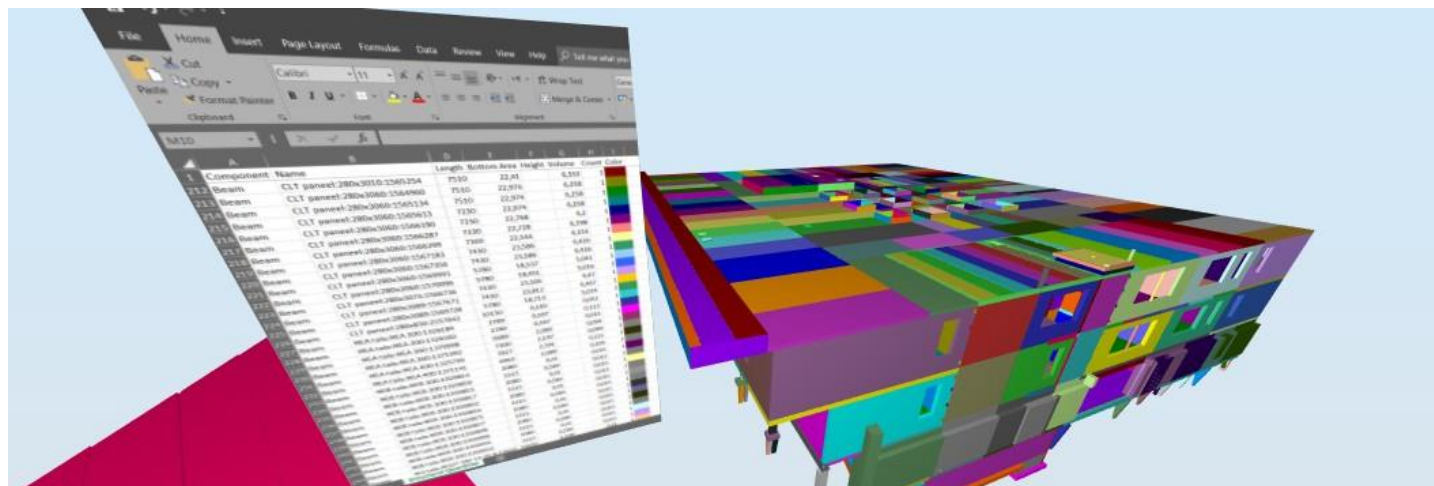


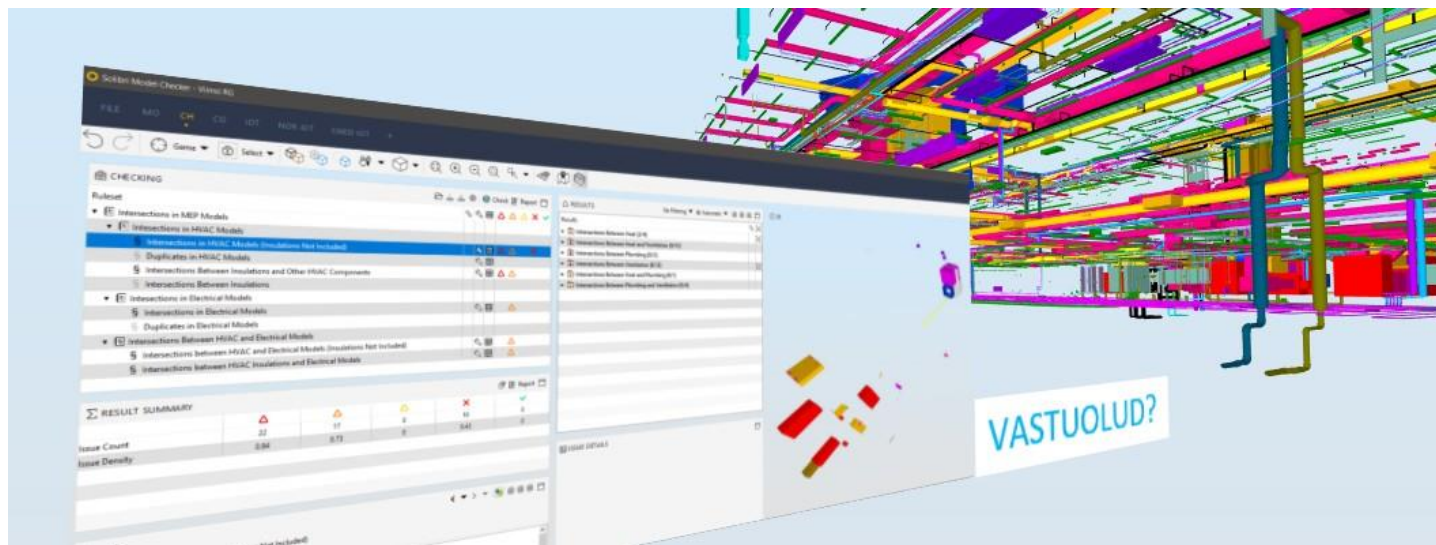


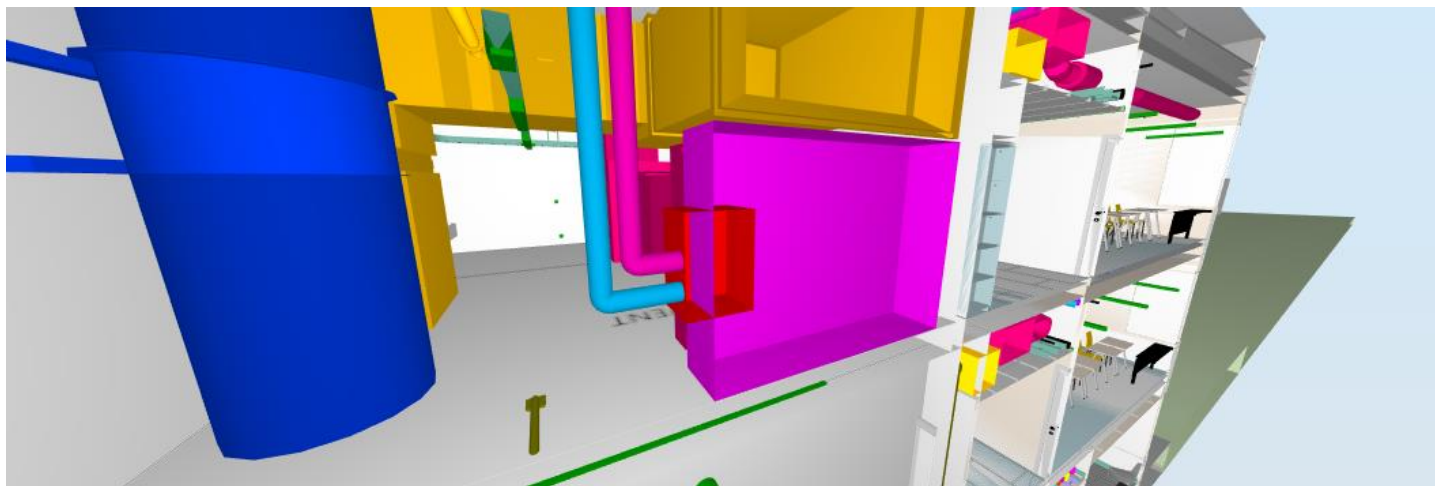


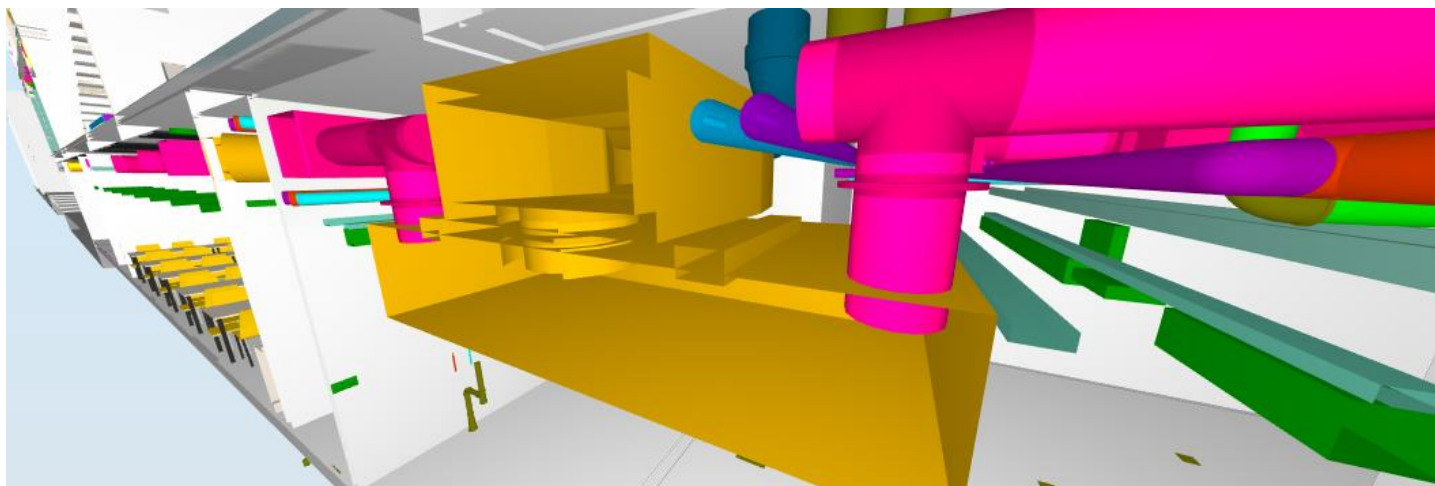


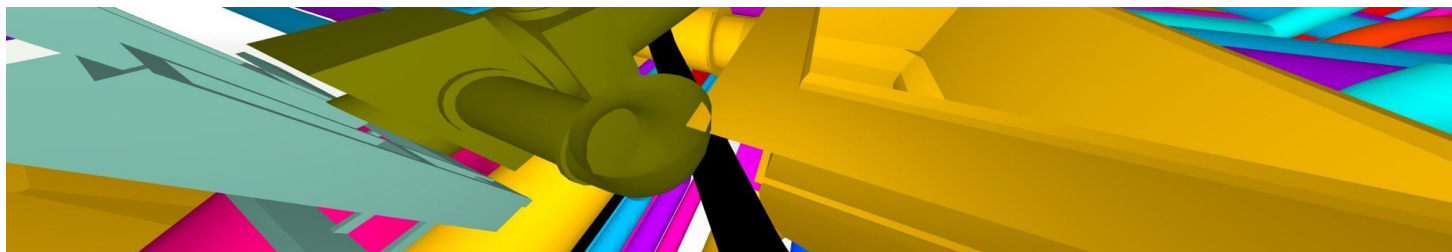


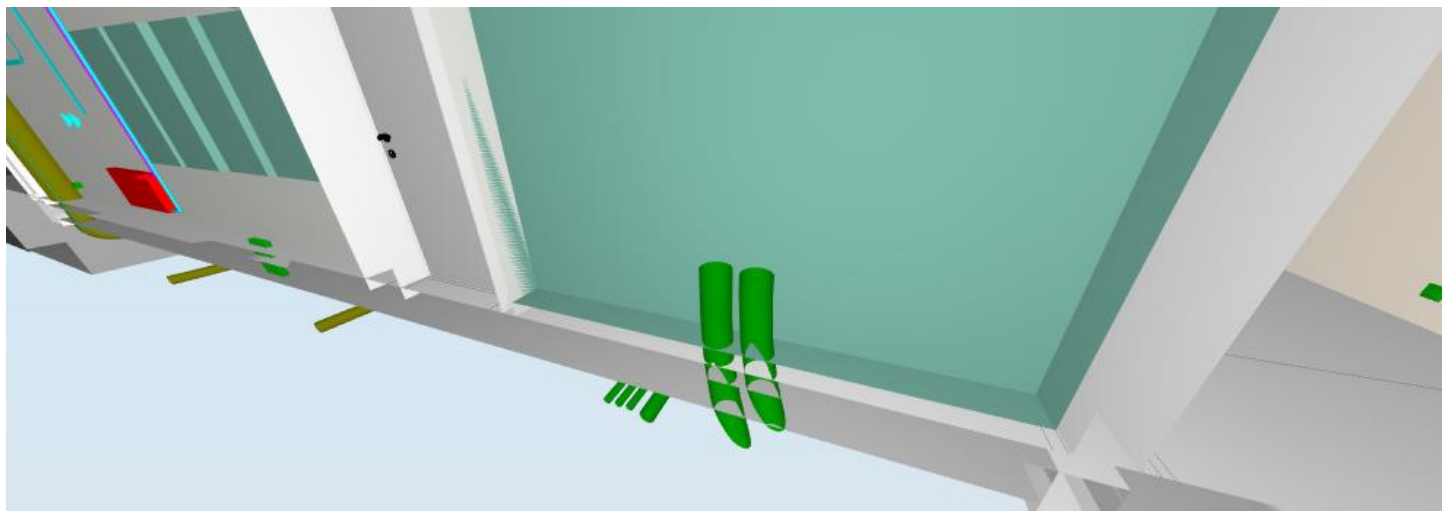


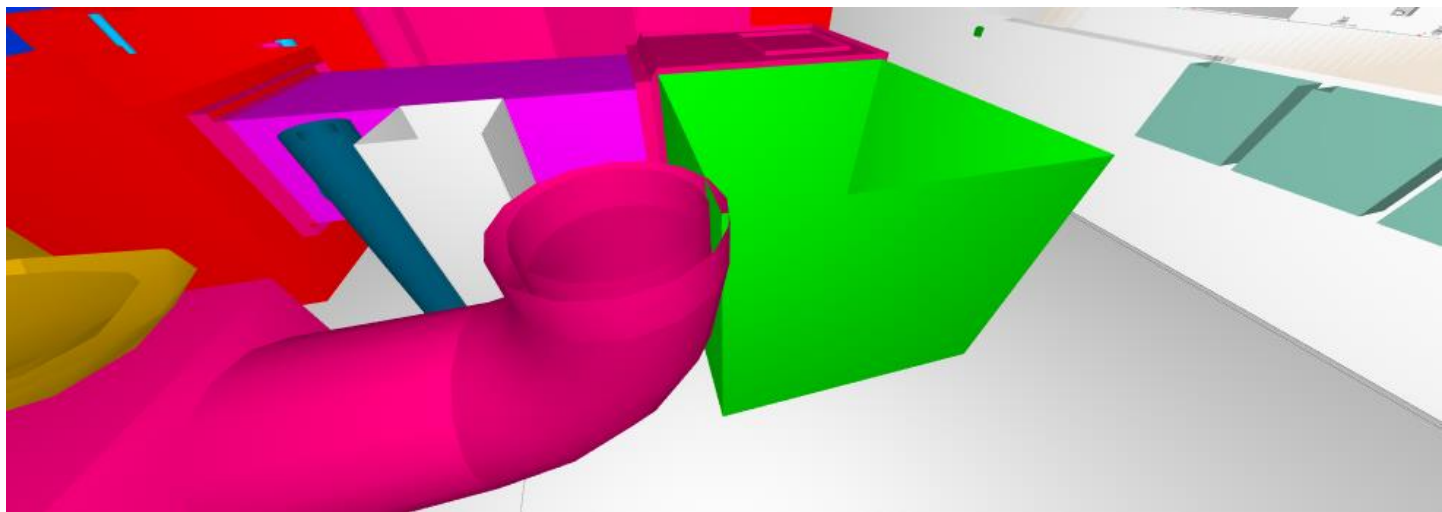


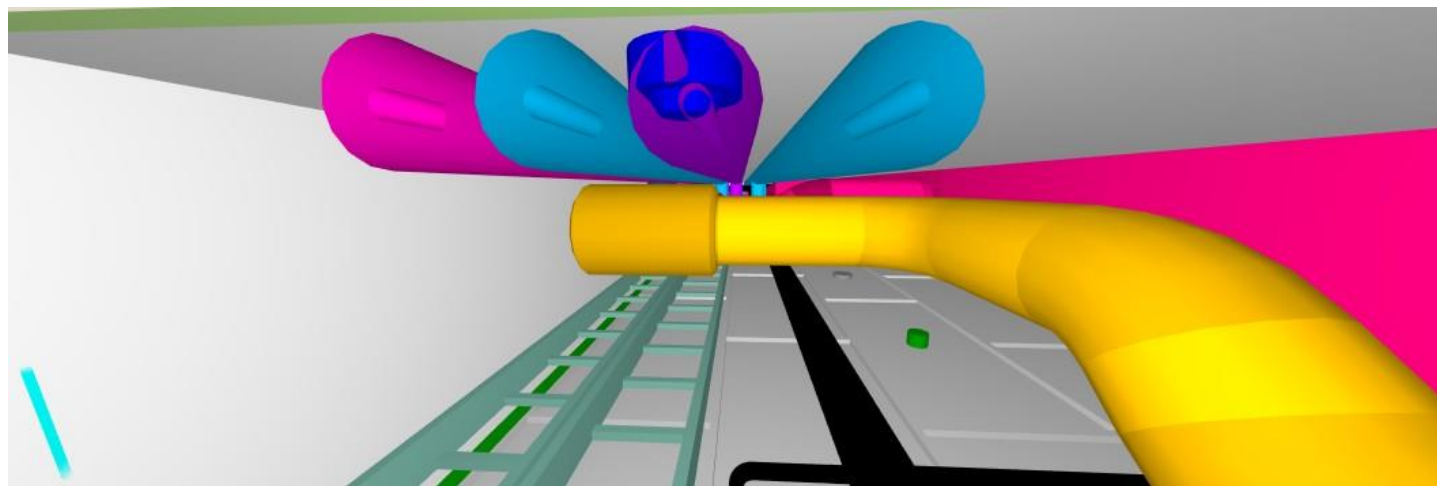


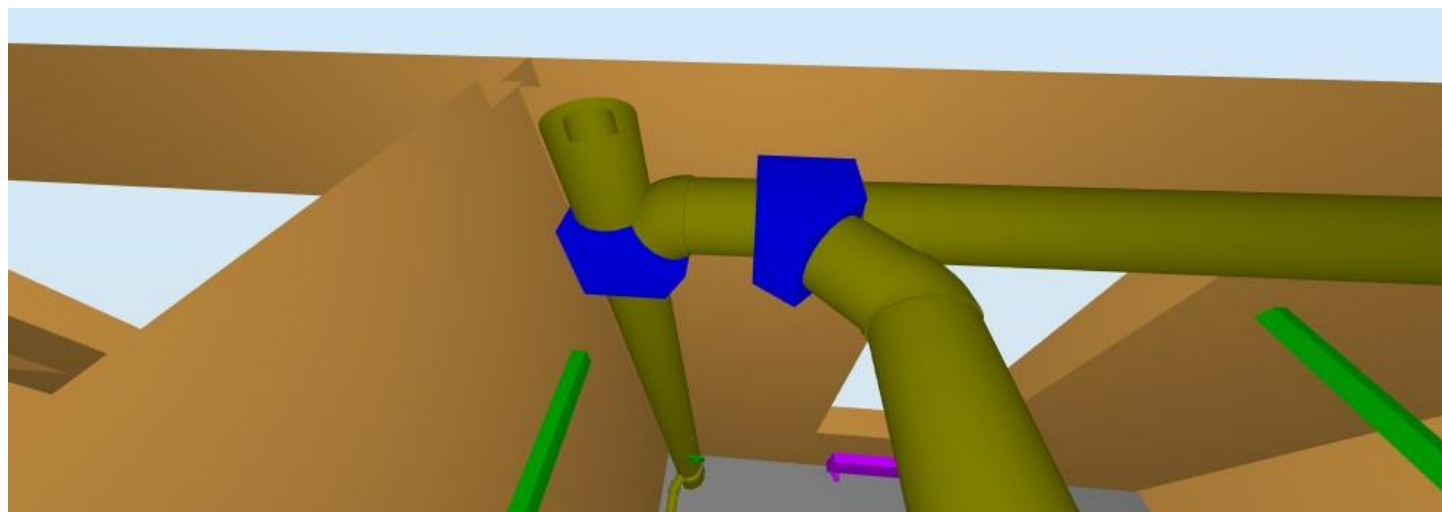


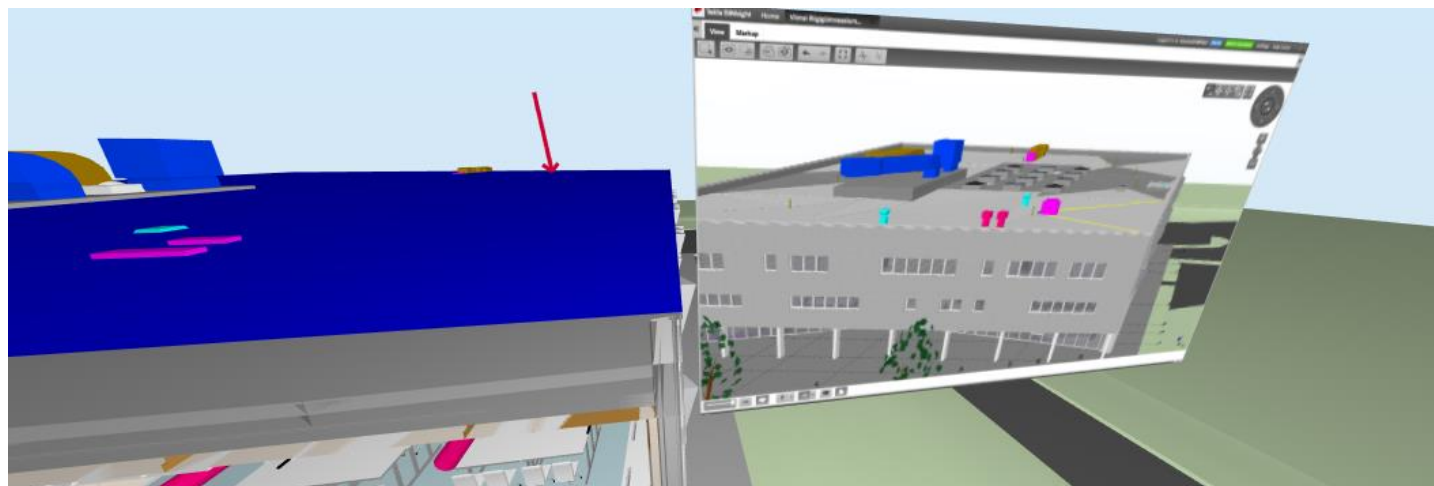


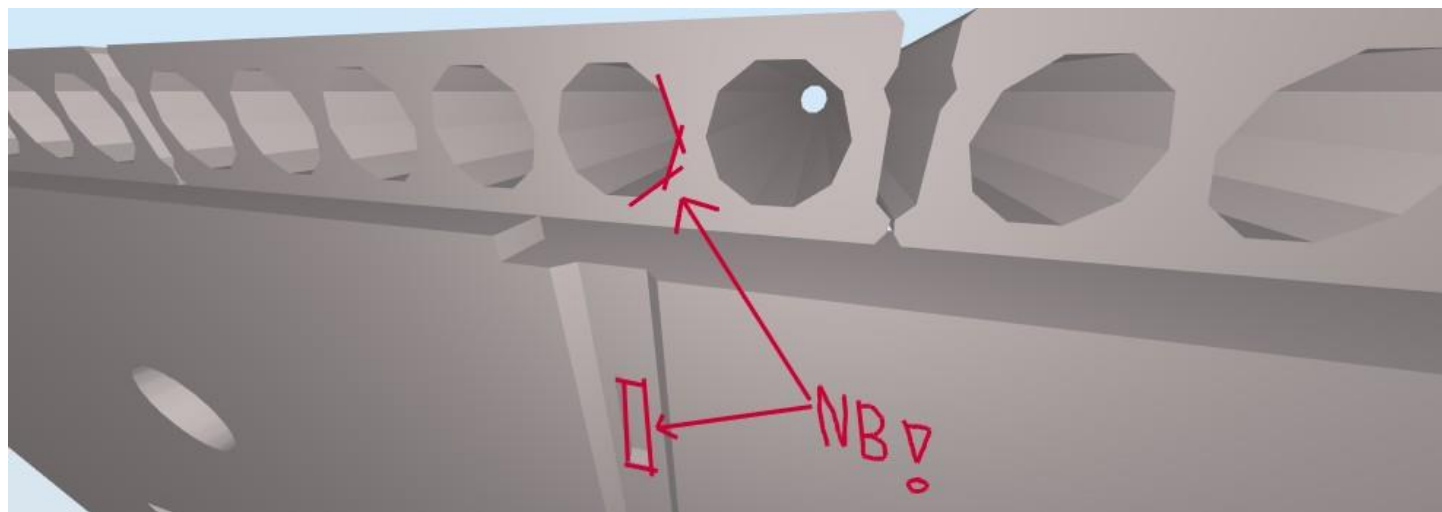


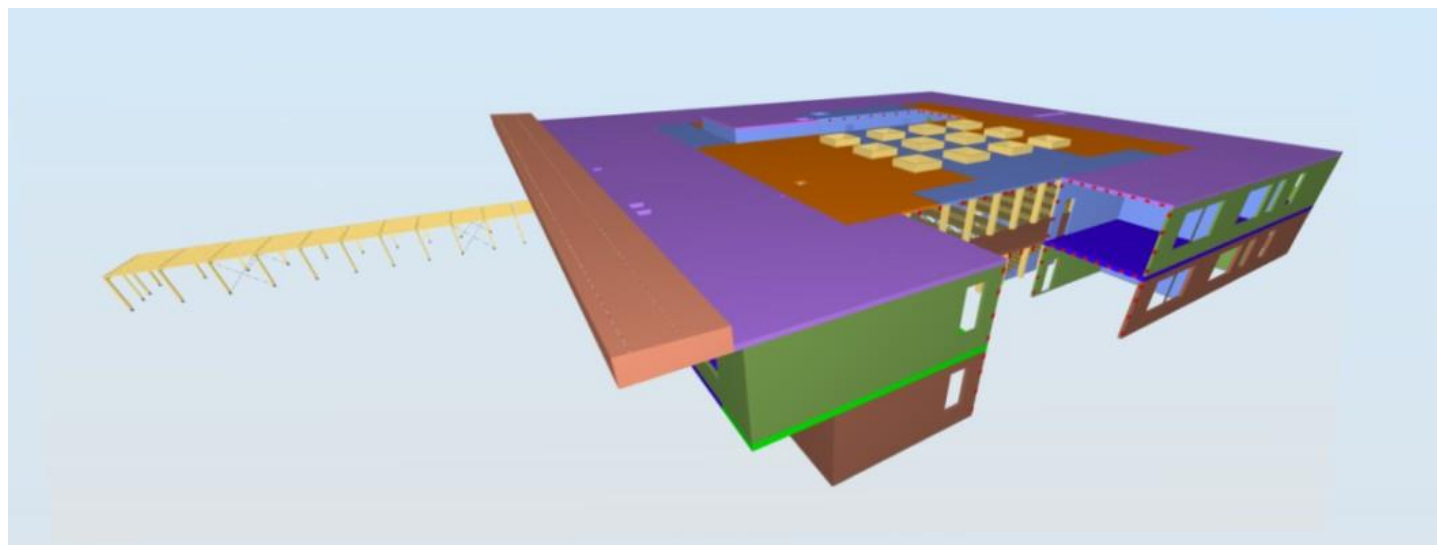










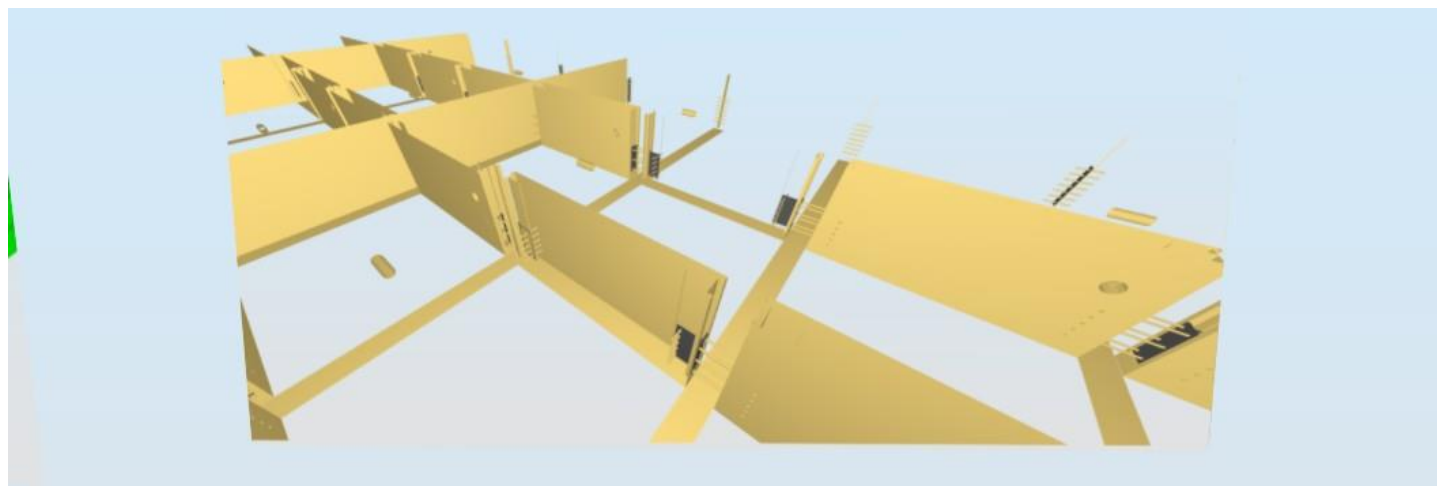


INFO

(V) Object.b.905

Identification	Location	Quantities	Relations	Classification	Hyperlinks
Property	unscripted			Value	structural
Name					
Phase					
Type					
Type Name					
Description					
Material					
Layer				CLT 280 L7-2 80-40-40-80 C24	
System					
Geometry				Boundary Representation	
Application				AutoCAD Architecture 2018 - English	
GUID				2f2nnBluArgG000000E42X	
BATID					
Model Categories					





BIM-i KOKKUVÕTTEKS:

1. Osapoolte BIM pädevus tagab kvaliteedi!
2. "EI OLE VÕIMALIK" = 70% tarkvara mittetundmine, 20% soov vältida nõude täitmist ja 10% tarkvara puudus
3. Hoia BIM suhtlus BIM-is ehk kasuta kommenteerimise funktsiooni vaaturtarkvaras – säilita logi ning suuna teemat "laualt lauale"
4. Kontrollraportid ja meilindus formaalsuseks mitte vastuolu lahendamiseks

PLUSSID:

- BIM koordinaator nii ehitajal kui ka projekteerijal = ühine arusaam ning pädev delegeerimine
- Vastuolude ja puuduste lahendamine suhtlusel koondmudelis= ajaline võit.
Koosolekud/koosolekul käsitlemine keerulistele sõlmpunktidele

MIINUSED:

- Korduvmudeldamine nõuete tagamiseks
(Scia Engineer->Autocad Architecture->IFC->Revit->IFC->RKAS)
- Hilinenud nõuded ja soovid – BIM saab nende sisseviimist vaid lihtsustada

